Certificate of Need Program

EQUIPMENT REPLACEMENT APPLICATION

- Expedited review if equipment to be replaced was CON-approved.
- Full review if equipment to be replaced was not CON-approved.

Project Name: MRI Replacement Project - Hospital Project No: 5494

Project Description: Replacement of existing MRI

Done	Page	N/A	Description

Divider I. Application Summary:

☑ 3 ☐ 1. Applicant Identification and Certification (Form MO 580-1861).
☑ 4-10 ☐ 2. Representative Registration (Form MO 580-1869).
☑ 11 ☐ 3. Proposed Project Budget (Form MO 580-1863) and detail sheet with documentation of costs.

Divider II. Proposal Description:

☑ 83 ☐ 1. Provide a complete detailed project description.
☑ 84 ☐ 2. Provide a listing with itemized costs of the medical equipment to be acquired.
☑ 18-73 ☐ 3. Provide bid quotes for the proposed equipment.

Divider III. Community Need Criteria and Standards:

☑ 88 ☐ 1. Describe the financial rationale for the proposed replacement equipment.
☑ 88 ☐ 2. Document if the existing equipment has exceeded its useful life.
☑ 88 ☐ 3. Describe the effect the replacement unit would have on quality of care.
☑ 88 ☐ 4. Document if the existing equipment is in constant need of repair.
☑ 88 ☐ 5. Document if the lease on the current equipment has expired.
☑ 89 ☐ 6. Describe the technological advances provided by the new unit.
☑ 89 ☐ 7. Describe how patient satisfaction would be improved.
☑ 89 ☐ 8. Describe how patient outcomes would be improved.
☑ 89 ☐ 9. Describe what impact the new unit would have on utilization.
☑ 90 ☐ 10. Describe any new capabilities that the new unit would provide.
☑ 90 ☐ 11. By what percent will this replacement increase patient charges?

(If replacement equipment was not previously approved, also complete Divider IV below.)

Divider IV. Financial Feasibility Review Criteria and Standards:

☐ ___ ☑ 1. Document that sufficient financing is available by providing a letter from a financial institution or an auditor's statement indicating that sufficient funds are available.
☐ ___ ☑ 2. Provide Service-Specific Revenues and Expenses (Form MO 580-1865) projected through three full years beyond project completion.
☐ ___ ☑ 3. Document how patient charges are derived.
☐ ___ ☑ 4. Document responsiveness to the needs of the medically indigent.

Poplar Bluff Regional Medical Center

Expedited Certificate of Need Application

MRI Replacement

2017

Project # 5494 HT

DIVIDER I

Certificate of Need Program

APPLICANT IDENTIFICATION AND CERTIFICATION

*The information provided must match the **Letter of Intent** for this project, without exception.*

1. Project Location *(Attach additional pages as necessary to identify multiple project sites.)*

Title of Proposed Project	Project Number
MRI Replacement Project - Hospital	5494
Project Address *(Street/City/State/Zip Code)*	**County**
3100 Oak Grove Road, Poplar Bluff, MO 63901	Butler

2. Applicant Identification *(Information must agree with previously submitted Letter of Intent.)*

List All Owner(s): *(List corporate entity.)*	Address (Street/City/State/Zip Code)	Telephone Number
Poplar Bluff Regional Medical Center	3100 Oak Grove Road, Poplar Bluff, MO 63901	573-776-2000
Community Health Systems, LLC	4000 Meridian Boulevard, Franklin, TN 37067	615-465-7000

List All Operator(s): *(List entity to be licensed or certified.)*	Address (Street/City/State/Zip Code)	Telephone Number
Poplar Bluff Regional Medical Center	3100 Oak Grove Road, Poplar Bluff, MO 63901	573-776-2000

3. Ownership *(Check applicable category.)*

☐ Nonprofit Corporation ☐ Individual ☐ City ☐ District

☐ Partnership ☑ Corporation ☐ County ☐ Other_____

4. Certification

In submitting this project application, the applicant understands that:

(A) The review will be made as to the community need for the proposed beds or equipment in this application;
(B) In determining community need, the Missouri Health Facilities Review Committee (Committee) will consider all similar beds or equipment within the service area;
(C) The issuance of a Certificate of Need (CON) by the Committee depends on conformance with its Rules and CON statute;
(D) A CON shall be subject to forfeiture for failure to incur an expenditure on any approved project six (6) months after the date of issuance, unless obligated or extended by the Committee for an additional six (6) months:
(E) Notification will be provided to the CON Program staff if and when the project is abandoned; and
(F) A CON, if issued, may not be transferred, relocated, or modified except with the consent of the Committee.

We certify the information and date in this application as accurate to the best of our knowledge and belief by our representative's signature below:

5. Authorized Contact Person *(Attach a Contact Person Correction Form if different from the Letter of Intent.)*

Name of Contact Person		Title
Larry Rodgers		CEO
Telephone Number	**Fax Number**	**E-mail Address**
573-776-9526	573-776-9086	larry.rodgers@poplarbuffregional.com
Signature of Contact Person		**Date of Signature**
Larry Rodgers		6/27/17

MO 580-1861 (03/13)

Certificate of Need Program

REPRESENTATIVE REGISTRATION

*(A registration form must be completed for **each** project presented.)*

Project Name	Number
MRI Replacement Project - Hospital	5494

(Please type or print legibly.)

Name of Representative	Title
Becky Eyler	Imaging Services Director

Firm/Corporation/Association of Representative (may be different from below, e.g., law firm, consultant, other)	Telephone Number
Poplar Bluff Regional Medical Center	573-776-1112

Address (Street/City/State/Zip Code)

3100 Oak Grove Road, Poplar Bluff Regional Medical Center

Who's interests are being represented?
(If more than one, submit a separate Representative Registration Form for each.)

Name of Individual/Agency/Corporation/Organization being Represented	Telephone Number
Poplar Bluff Regional Medical Center	573-776-2000

Address (Street/City/State/Zip Code)

3100 Oak Grove Road, Poplar Bluff, MO 63901

Check one. Do you:

- ☑ Support
- ☐ Oppose
- ☐ Neutral

Relationship to Project:

- None
- ☑ Employee
- ☐ Legal Counsel
- ☐ Consultant
- ☐ Lobbyist
- ☐ Other (explain):

Other Information:

I attest that to the best of my belief and knowledge the testimony and information presented by me is truthful, represents factual information, and is in compliance with §197.326.1 RSMo which says: *Any person who is paid either as part of his normal employment or as a lobbyist to support or oppose any project before the health facilities review committee shall register as a lobbyist pursuant to chapter 105 RSMo, and shall also register with the staff of the health facilities review committee for every project in which such person has an interest and indicate whether such person supports or opposes the named project. The registration shall also include the names and addresses of any person, firm, corporation or association that the person registering represents in relation to the named project. Any person violating the provisions of this subsection shall be subject to the penalties specified in §105.478, RSMo.*

Original Signature	Date
Becky Eyler	6/23/17

CO 580-1869 (11/01)

Certificate of Need Program

REPRESENTATIVE REGISTRATION

*(A registration form must be completed for **each** project presented.)*

Project Name	Number
MRI Replacement Project - Hospital	5494

(Please type or print legibly.)

Name of Representative	Title
Larry Rodgers	Chief Executive Officer

Firm/Corporation/Association of Representative (may be different from below, e.g., law firm, consultant, other)	Telephone Number
Poplar Bluff Regional Medical Center	573-776-1112

Address (Street/City/State/Zip Code)

3100 Oak Grove Road, Poplar Bluff Regional Medical Center

Who's interests are being represented?
(If more than one, submit a separate Representative Registration Form for each.)

Name of Individual/Agency/Corporation/Organization being Represented	Telephone Number
Poplar Bluff Regional Medical Center	573-776-2000

Address (Street/City/State/Zip Code)

3100 Oak Grove Road, Poplar Bluff, MO 63901

Check one. Do you:

- ☑ Support
- ☐ Oppose
- ☐ Neutral

Relationship to Project:

- ☐ None
- ☑ Employee
- ☐ Legal Counsel
- ☐ Consultant
- ☐ Lobbyist
- ☐ Other (explain):

Other Information:

I attest that to the best of my belief and knowledge the testimony and information presented by me is truthful, represents factual information, and is in compliance with §197.326.1 RSMo which says: *Any person who is paid either as part of his normal employment or as a lobbyist to support or oppose any project before the health facilities review committee shall register as a lobbyist pursuant to chapter 105 RSMo, and shall also register with the staff of the health facilities review committee for every project in which such person has an interest and indicate whether such person supports or opposes the named project. The registration shall also include the names and addresses of any person, firm, corporation or association that the person registering represents in relation to the named project. Any person violating the provisions of this subsection shall be subject to the penalties specified in § 105.478, RSMo.*

Original Signature	Date
Larry Rodgers	6/23/17

MO 580-1869 (11/01)

Certificate of Need Program

REPRESENTATIVE REGISTRATION

*(A registration form must be completed for **each** project presented.)*

Project Name	Number
MRI Replacement Project - Hospital	5494

(Please type or print legibly.)

Name of Representative	Title
Buddy Daniels	Chief Operating Officer

Firm/Corporation/Association of Representative (may be different from below, e.g., law firm, consultant, other)	Telephone Number
Poplar Bluff Regional Medical Center	573-776-1112

Address (Street/City/State/Zip Code)

3100 Oak Grove Road, Poplar Bluff Regional Medical Center

Who's interests are being represented?
(If more than one, submit a separate Representative Registration Form for each.)

Name of Individual/Agency/Corporation/Organization being Represented	Telephone Number
Poplar Bluff Regional Medical Center	573-776-2000

Address (Street/City/State/Zip Code)

3100 Oak Grove Road, Poplar Bluff, MO 63901

Check one. Do you:

- ☑ Support
- ☐ Oppose
- ☐ Neutral

Relationship to Project:

- ☐ None
- ☑ Employee
- ☐ Legal Counsel
- ☐ Consultant
- ☐ Lobbyist
- ☐ Other (explain):

Other Information:

I attest that to the best of my belief and knowledge the testimony and information presented by me is truthful, represents factual information, and is in compliance with §197.326.1 RSMo which says: *Any person who is paid either as part of his normal employment or as a lobbyist to support or oppose any project before the health facilities review committee shall register as a lobbyist pursuant to chapter 105 RSMo, and shall also register with the staff of the health facilities review committee for every project in which such person has an interest and indicate whether such person supports or opposes the named project. The registration shall also include the names and addresses of any person, firm, corporation or association that the person registering represents in relation to the named project. Any person violating the provisions of this subsection shall be subject to the penalties specified in §105.478, RSMo.*

Original Signature	Date
B. D	6/23/17

40 580-1869 (11/01)

Certificate of Need Program

REPRESENTATIVE REGISTRATION

*(A registration form must be completed for **each** project presented.)*

Project Name	Number
MRI Replacement Project - Hospital	5494

(Please type or print legibly.)

Name of Representative	Title
Steve Dorris	Chief Financial Officer

Firm/Corporation/Association of Representative (may be different from below, e.g., law firm, consultant, other)	Telephone Number
Poplar Bluff Regional Medical Center	573-776-1112

Address (Street/City/State/Zip Code)

3100 Oak Grove Road, Poplar Bluff Regional Medical Center

Who's interests are being represented?
(If more than one, submit a separate Representative Registration Form for each.)

Name of Individual/Agency/Corporation/Organization being Represented	Telephone Number
Poplar Bluff Regional Medical Center	573-776-2000

Address (Street/City/State/Zip Code)

3100 Oak Grove Road, Poplar Bluff, MO 63901

Check one. Do you:

- [x] Support
- [ ] Oppose
- [ ] Neutral

Relationship to Project:

- None
- [x] Employee
- [ ] Legal Counsel
- [ ] Consultant
- [ ] Lobbyist
- [ ] Other (explain):

Other Information:

I attest that to the best of my belief and knowledge the testimony and information presented by me is truthful, represents factual information, and is in compliance with §197.326.1 RSMo which says: *Any person who is paid either as part of his normal employment or as a lobbyist to support or oppose any project before the health facilities review committee shall register as a lobbyist pursuant to chapter 105 RSMo, and shall also register with the staff of the health facilities review committee for every project in which such person has an interest and indicate whether such person supports or opposes the named project. The registration shall also include the names and addresses of any person, firm, corporation or association that the person registering represents in relation to the named project. Any person violating the provisions of this subsection shall be subject to the penalties specified in § 105.478, RSMo.*

Original Signature	Date
Steve Dorris	6-23-17

MO 580-1869 (11/01)

Certificate of Need Program

REPRESENTATIVE REGISTRATION

*(A registration form must be completed for **each** project presented.)*

Project Name	Number
MRI Replacement Project - Hospital	5494

(Please type or print legibly.)

Name of Representative	Title
William Pelton, MD	Radiologist

Firm/Corporation/Association of Representative (may be different from below, e.g., law firm, consultant, other)	Telephone Number
Cape Radiology Group	573-314-6071

Address (Street/City/State/Zip Code)

#70 Doctors' Park, Cape Girardeau, MO 63703

Who's interests are being represented?
(If more than one, submit a separate Representative Registration Form for each.)

Name of Individual/Agency/Corporation/Organization being Represented	Telephone Number
Poplar Bluff Regional Medical Center	573-776-2000

Address (Street/City/State/Zip Code)

3100 Oak Grove Road, Poplar Bluff, MO 63901

Check one. Do you:

- ☑ Support
- ☐ Oppose
- ☐ Neutral

Relationship to Project:

- None
- Employee
- Legal Counsel
- Consultant
- Lobbyist
- ☑ Other (explain): Radiologist

Other Information:

I attest that to the best of my belief and knowledge the testimony and information presented by me is truthful, represents factual information, and is in compliance with §197.326.1 RSMo which says: *Any person who is paid either as part of his normal employment or as a lobbyist to support or oppose any project before the health facilities review committee shall register as a lobbyist pursuant to chapter 105 RSMo, and shall also register with the staff of the health facilities review committee for every project in which such person has an interest and indicate whether such person supports or opposes the named project. The registration shall also include the names and addresses of any person, firm, corporation or association that the person registering represents in relation to the named project. Any person violating the provisions of this subsection shall be subject to the penalties specified in §105.478, RSMo.*

Original Signature	Date
WM Pelton	6/26/17

MO 580-1869 (11/01)

Certificate of Need Program

REPRESENTATIVE REGISTRATION

*(A registration form must be completed for **each** project presented.)*

Project Name	Number
MRI Replacement Project - Hospital	5494

(Please type or print legibly.)

Name of Representative	Title
Mark Gates, MD	Radiologist

Firm/Corporation/Association of Representative (may be different from below, e.g., law firm, consultant, other)	Telephone Number
Cape Radiology Group	573-334-6071

Address (Street/City/State/Zip Code)

#70 Doctors' Park, Cape Girardeau, MO 63703

Who's interests are being represented?
(If more than one, submit a separate Representative Registration Form for each.)

Name of Individual/Agency/Corporation/Organization being Represented	Telephone Number
Poplar Bluff Regional Medical Center	573-776-2000

Address (Street/City/State/Zip Code)

3100 Oak Grove Road, Poplar Bluff, MO 63901

Check one. Do you:

- ☑ Support
- ☐ Oppose
- ☐ Neutral

Relationship to Project:

- None
- ☐ Employee
- ☐ Legal Counsel
- ☐ Consultant
- ☐ Lobbyist
- ☑ Other (explain): Radiologist

Other Information:

I attest that to the best of my belief and knowledge the testimony and information presented by me is truthful, represents factual information, and is in compliance with §197.326.1 RSMo which says: *Any person who is paid either as part of his normal employment or as a lobbyist to support or oppose any project before the health facilities review committee shall register as a lobbyist pursuant to chapter 105 RSMo, and shall also register with the staff of the health facilities review committee for every project in which such person has an interest and indicate whether such person supports or opposes the named project. The registration shall also include the names and addresses of any person, firm, corporation or association that the person registering represents in relation to the named project. Any person violating the provisions of this subsection shall be subject to the penalties specified in § 105.478, RSMo.*

Original Signature	Date
Mark A Gates MD	6/30/2017

MO 580-1869 (11/01)

Certificate of Need Program

REPRESENTATIVE REGISTRATION

(A registration form must be completed for each project presented.)

Project Name	Number
MRI Replacement Project - Hospital	5494

(Please type or print legibly.)

Name of Representative	Title
Christopher Murdock, DO	Radiologist

Firm/Corporation/Association of Representative (may be different from below, e.g., law firm, consultant, other)	Telephone Number
Cape Radiology Group	573-334-6071

Address (Street/City/State/Zip Code)

#70 Doctors' Park, Cape Girardeau, MO 63703

Who's interests are being represented?
(If more than one, submit a separate Representative Registration Form for each.)

Name of Individual/Agency/Corporation/Organization being Represented	Telephone Number
Poplar Bluff Regional Medical Center	573-776-2000

Address (Street/City/State/Zip Code)

3100 Oak Grove Road, Poplar Bluff, MO 63901

Check one. Do you:

- ☑ Support
- ☐ Oppose
- ☐ Neutral

Relationship to Project:

- ☐ None
- ☐ Employee
- ☐ Legal Counsel
- ☐ Consultant
- ☐ Lobbyist
- ☑ Other (explain): Radiologist

Other Information:

I attest that to the best of my belief and knowledge the testimony and information presented by me is truthful, represents factual information, and is in compliance with §197.326.1 RSMo which says: *Any person who is paid either as part of his normal employment or as a lobbyist to support or oppose any project before the health facilities review committee shall register as a lobbyist pursuant to chapter 105 RSMo, and shall also register with the staff of the health facilities review committee for every project in which such person has an interest and indicate whether such person supports or opposes the named project. The registration shall also include the names and addresses of any person, firm, corporation or association that the person registering represents in relation to the named project. Any person violating the provisions of this subsection shall be subject to the penalties specified in §105.478, RSMo.*

Original Signature	Date
Christopher Murdock DO	7/5/17

MO 580-1869 (11/01)

Certificate of Need Program

PROPOSED PROJECT BUDGET

Description	Dollars (Fill in every line, even if the amount is "$0".)
COSTS:*	
1. New Construction Costs ***	$0
2. Renovation Costs ***	$33,650
3. **Subtotal Construction Costs** (#1 plus #2)	$33,650
4. Architectural/Engineering Fees	$0
5. Other Equipment (not in construction contract)	$38,415
6. Major Medical Equipment	$1,218,012
7. Land Acquisition Costs ***	$0
8. Consultants' Fees/Legal Fees ***	$0
9. Interest During Construction (net of interest earned) ***	$0
10. Other Costs ***	$39,000
11. **Subtotal Non-Construction Costs** (sum of #4 through #10	$1,295,427
12. **Total Project Development Costs** (#3 plus #11)	$1,329,077 **
FINANCING:	
13. Unrestricted Funds	$1,329,077
14. Bonds	$0
15. Loans	$0
16. Other Methods (specify)	$0
17. **Total Project Financing** (sum of #13 through #16)	$1,329,077 **
18. New Construction Total Square Footage	
19. New Construction Costs Per Square Foot *****	$0
20. Renovated Space Total Square Footage	1,018
21. Renovated Space Costs Per Square Foot ******	$33

* *Attach additional page(s) detailing how each line item was determined, including all methods and assumptions used. Provide documentation of all major costs.*

** *These amounts should be the same.*

*** *Capitalizable items to be recognized as capital expenditures after project completion.*

**** *Include as Other Costs the following: other costs of financing; the value of existing lands, buildings and equipment not previously used for health care services, such as a renovated house converted to residential care, determined by original cost, fair market value, or appraised value; or the fair market value of any leased equipment or building, or the cost of beds to be purchased.*

***** *Divide new construction costs by total new construction square footage.*

****** *Divide renovation costs by total renovation square footage.*

PROPOSED PROJECT BUDGET

LINE ITEM EXPLANATION

1. No new construction
2. See Exhibit 1. Renovation costs are estimated based on quotes submitted by Nagell Construction, LLC ($9,000) and ETS-Lindgren ($24,650).
3. Subtotal
4. None
5. MRI Injector – Exhibit 2
6. Major Medical Equipment - See Equipment quote Exhibit 3.
7. Land is owned
8. None
9. None
10. Estimated cost of mobile service during construction. See Exhibit 4.
11. Subtotal
12. Total
13. Community Health Systems, LLC, parent corporation of Poplar Bluff Regional Medical Center, has agreed to provide funding for all costs (equipment, renovation and mobile service)
14. NA
15. NA
16. NA
17. Total
18. NA
19. NA
20. Square Footage of existing MRI space
21. $33,650/1018

EXHIBIT 1

Nagell Construction LLC

392 CR 445

Poplar Bluff, MO 63901

MRI Bid for Poplar Bluff Regional

-knockout for interior MRI machine to be opened up for removal. Upon removal of machine, all brick, wall studs, Sheetrock, paint, insulation and any mechanical to all be replaced and returned as before.

Knockout remodel ($9,000)

Thank you for your business,

Shane Nagell

Nagell Construction LLC

ETS-LINDGREN
An ESCO Technologies Company

SOUTH WESTERN REGIONAL OFFICE
17915 E 95th St. N • Owasso, OK 74055 • 918 376-2800 • Fax: 918 376-2801
Email - john.stanfield@ets-lindgren.com

Date: July 6, 2017

Proposal: #91370
Revision: 01

Poplar Bluff Regional Medical Center
3100 Oak Grove Rd
Poplar Bluff, MO 63901

Direct: 573 776-9325
Cell:

Attn: **Becky Eyler**

Email: becky.eyler@poplarbluffregional.com

Project:	Location:	Shield type:	New MRI system:
Bluff Regional Med Ctr Oak Grove Rd	**Poplar Bluff, MO**	**Existing ETS-Lindgren**	**Siemens 1.5T Aera**

ETS-Lindgren is pleased to submit the following pricing for the upgrade work:

Baseline RF Test Date	TBD
Architectural Plans Provided	No
Magnet Plans Provided	No
Existing Shield	**ETS S/N 39797**
Type Shield	**Copper Cell Floor**
Magnet Out: **GE 1.5T**	Magnet In: **Siemens 1.5T Aera**

We would like to call your attention to the following scope of work:

- ETS-Lindgren to conduct initial baseline RF test to determine the present baseline performance of the RF shield.
- Remove and replace magnet access panels to facilitate magnet removal/delivery.
- Modify RF floor to accommodate Siemens base plate for patient table. (Template and Base plate provided by Siemens.)
- Provide and install seismic anchoring for Siemens magnet. (If required) (Brackets provided by Siemens)
- Provide and install additional shield support hanger in area of new overhead cable trays. (Cable trays by others.)
- Provide and install Siemens stainless steel cryogen waveguide shield penetration.
- Modify penetration panel for new Siemens interface.
- Provide and install two (2) filters for Siemens EPO. (one 10 amp and one 30 amp)
- Repair/infill old magnet penetrations.
- Provide door maintenance of existing RF door.
- Provide final RF verification test of the completed installation to confirm RF shield performs equal to or better than the initial RF diagnostic baseline test.
- All labor associated with the RF components to be re-worked/installed consisting of open shop technician and three (3) visits to site.
- Includes all travel related expenses & Freight

PROPOSED PROJECT BUDGET

LINE ITEM EXPLANATION

1. No new construction
2. See Exhibit 1. Renovation costs are estimated based on a quote submitted by Nagell Construction, LLC ($9,000) and ETS-Lindgren ($24,650).
3. Subtotal
4. None
5. MRI Injector – Exhibit 2
6. Major Medical Equipment - See Equipment quote Exhibit 3.
7. Land is owned
8. None
9. None
10. Estimated cost of mobile service during construction. See Exhibit 4.
11. Subtotal
12. Total
13. Community Health Systems, LLC, parent corporation of Poplar Bluff Regional Medical Center, has agreed to provide funding for all costs (equipment, renovation and mobile service)
14. NA
15. NA
16. NA
17. Total
18. NA
19. NA
20. Square Footage of existing MRI space
21. $33,650/1018

EXHIBIT 2

Quotation

Sales Support
tel (800) 633-7231
fax (412) 406-0952

Bayer HealthCare LLC
1 Bayer Drive
Indianola, PA 15051

This quotation has been prepared for:

Issued on 6/1/2017 **Valid until 7/31/2017** **Trade-in required No**

Your Bayer Sales Team:

Amy Wilhelm, Inside Sales Representative, amy wilhelm@bayer com

Quotation Overview

HPG EQUIPMENT Pricing Applied

Bayer's diagnostic imaging products, software, and equipment service help healthcare teams in radiology address their critical performance, quality, uptime, and scheduling requirements.

Please note: If pricing and terms of this [order/quote] are based upon your current Group Purchasing Organization (GPO) affiliation, any change to your current affiliation may require a new quote or updated terms and pricing.

Products and Services Details in this quote for an itemized breakdown of quoted products.

Product Name	Total List Price	YOUR PRICE
MRXperion - Medrad® MRXperion™ MR Injection System(s)	$57,740.00	$38,415.00
TOTAL (Local taxes, shipping and/or handling to be invoiced when applicable)	$57,740.00	$38,415.00

All Pricing is in U.S. Currency.

Quotation continued

Quotation prepared for: Poplar Bluff Regional Medical Center **Issued on 6/1/2017** **Valid until 7/31/2017**

Products and Services Details

Item(s)	Catalog No.	Qty	Unit List Price	Contracted Price	YOUR PRICE
Medrad® MRXperion® MR Injection System	MRXP 200	1	$54,950.00	$35,750.00	$35,750.00
Installation - Medrad® MRXperion MR Injection System	INS MRXP	1	$2,400.00	$0.00	$2,400.00
2 syringes per kit (115 mL/65 mL), large & small spike, 96" LPCT with T-con and check valve - 20 kits/box	XP 65/115VS	1	$390.00	$265.00	$265.00
Subtotal					$38,415.00

TOTAL	**$38,415.00**
GRAND TOTAL (Local taxes, shipping and/or handling to be invoiced when applicable)	**$38,415.00**

If your organization is tax exempt, please notify Sales Support at 1-800-633-7231.

All Pricing is in U.S. Currency.

Quotation

Sales Support
tel (800) 633-7231
fax (412) 406-0952

Bayer HealthCare LLC
1 Bayer Drive
Indianola, PA 15051

This quotation has been prepared for: Poplar Bluff Regional Medical Center

Issued on 6/1/2017 **Valid until 7/31/2017** **Trade-In required No**

Your Bayer Sales Team:

Amy Wilhelm, Inside Sales Representative, amy.wilhelm@bayer.com

If you are using this quote as a purchase order, please complete the Acceptance and Billing information below

Acceptance and Billing

Your signature below indicates your acceptance of this Agreement, including the terms and conditions included as part of this document. Please complete the information below, along with your Purchase Order referencing Quote # Q-00009022, and email this form to Sales Support at rlsalessupport@bayer.com AND your SC, Amy Wilhelm, at amy.wilhelm@bayer.com.

If pricing and terms of this order are based on your current Group Purchasing Organization (GPO) affiliation, any change to your current affiliation may require a new quote or updated terms and pricing.

Payment terms
30 days due net

Terms of Delivery
POPLAR BLUFF

stomer contact
BECKY EYLER

Address
3100 Oak Grove Rd
Poplar Bluff, MO 63901

Billing Information
3100 Oak Grove Rd
Poplar Bluff, MO 63901

Customer Number
173208

Phone
5736866983

Additional Customer Comments

PO#

PO Amount

Write PO amount

Customer Approver

Customer Approver Title

Write customer title

Billing Email Address (if applicable)

Customer Approver Signature

Please print and sign

Date

MM/DD/YYYY

All Pricing is in U.S. Currency.

Bayer Product Terms and Conditions

GROUP PURCHASING AGREEMENT

If Customer is a member of a group purchasing organization ("GPO") who has a contract with Bayer, the terms of that GPO Agreement will supersede the terms herein.

SERVICE AGREEMENT SERVICE RATES AND POLICIES

BACKGROUND Bayer Healthcare LLC is referred to herein as "Bayer" and agrees to provide services to Buyer under the terms set forth in this Agreement.

MODIFICATIONS The prices and terms on this Agreement are not subject to verbal changes or other agreements unless approved in writing by Bayer's Corporate Office. Bayer is not responsible for typographical errors.

The following terms and conditions will not apply to the license of Bayer's Radiation Dose Management software (sometimes referred to as "RDM") and Contrast Dose Management software (sometimes referred to as "CDM"). A separate license agreement will be provided and will govern the license of RDM and CDM.

ACCEPTANCE

Bayer's products and services are sold only under the terms and conditions stated on this quotation. Acceptance of any Purchase Order is expressly and exclusively made conditional on your assent to these terms and conditions. Any different or additional terms and conditions that may appear in your Purchase Order or any other document sent by you, shall have no effect. Bayer expressly objects to and rejects all inconsistent or additional terms, conditions and limitations contained on any of your forms or other writings. If you do not communicate your objection to these terms and conditions in writing and within a reasonable time, or if you accept the goods covered by this Quote, you will be deemed to have accepted these terms and conditions and they will control in all instances. If the Products include embedded software or if you are purchasing software, BY HAVING THE SOFTWARE INSTALLED AND USING THE SOFTWARE PURCHASED HEREUNDER, YOU AGREE TO BE BOUND BY THE TERMS OF THIS AGREEMENT. IF YOU DO NOT AGREE TO THE TERMS OF THIS QUOTE, DO NOT INSTALL OR USE THE SOFTWARE AND NOTIFY BAYER IMMEDIATELY.

PRICING

Prices are based on costs and conditions existing on the date of this Quote and may be changed by Bayer before final acceptance. The pricing for products and services provided pursuant to this Quote may reflect or be subject to discounts, rebates, or other price reduction programs. Please be advised that you are obligated to: a) fully and accurately disclose the amount of any such discounts, rebates, or other price reductions in your cost reports or claims for reimbursement to Medicare, Medicaid, or health care programs requiring such disclosure and b) provide such documentation to representatives of the Secretary of the Department of Health and Human Services and state agencies upon request. Unless noted otherwise, the value of any product listed as $0.00 on this Quote may constitute a discount that you should evaluate when filing such reports. You may request additional information from Bayer in order to meet your reporting or disclosure obligations, by writing to the address set forth in this Quote.

All payments are due net thirty (30) days on the total invoiced amount. For all new customers Bayer requires a thirty percent (30%) pre-payment for all capital equipment orders, unless otherwise agreed to by Bayer. Bayer must approve any payment terms other than net thirty (30) days.

SHIPPING

All shipping dates are tentative. Bayer will make every reasonable effort to meet shipping dates referenced in this Quote. However, Bayer will not be liable for its failure to meet any such date.

INSTALLATION

The cost of installation is not included in the product price and is your responsibility unless otherwise stated. For details on equipment installation, you should consult with your Bayer Sales Representative or refer to your Products Manual, which is included with your equipment.

If this Quote includes installation of an overhead counterpoise system (OCS) it is your responsibility to ensure a suitable mounting location for the system. The counterpoise ceiling plate is required to be installed prior to Bayer installation of the counterpoise system and installed in accordance with the specifications listed in the installation manual. The OCS ceiling plate should always be installed by a qualified Structural Engineer and/or Architect. In addition, if applicable building codes require the use of a conduit, you are responsible for ensuring that a conduit is available prior to Bayer's installation.

If this Quote includes a Spectris Solaris with an Integrated Continuous Battery Charging System (iCBC), installation will require a standard power outlet in the scan room, or authorization to install a filter through the penetration panel.

LICENSE

If the Products include embedded software, or if you are purchasing software, Bayer grants to you a non-exclusive license to use such software provided by Bayer, solely in connection with, or to operate, the Products. Use of the software for any other purpose is strictly prohibited. This license is effective on the date you begin using the Products and software and will continue in effect unless you return the Products or software or if the license is terminated because you breach any provision of these Terms. Upon termination you shall immediately cease use of all software and shall return the Products and software to Bayer. The software

copyright is owned by Bayer and is protected by United States copyright laws and international treaty provisions. Bayer does not transfer title to the software to you, but retains the rights to make and license the use of all copies. You shall not copy, translate, disassemble, or decompile nor create or attempt to create, by reverse engineering or otherwise, the source code from the object code of the software. You are not permitted to modify or make derivative works of the software and ownership of any unauthorized modification or derivative work shall vest in Bayer.

PRODUCT WARRANTY

NEW PRODUCTS: Bayer warrants that all new Bayer products are free from defects in workmanship or material under proper, normal use and service for a period of one year (12 months) from shipment, unless a longer period is provided on the warranty with the products, or as otherwise provided herein.

REFURBISHED: Bayer warrants that all refurbished Bayer products shall perform in accordance with the documentation provided, under proper, normal use and service for a period of the rter of a) 90 days from installation or b) six months from pment, unless a longer period is provided on the warranty with the products, or as otherwise provided herein.

DISPOSABLE PRODUCTS: If this Quote includes disposable products, Bayer's warranty shall be limited to repair or replacement of any defective disposable product upon receipt of the defective product and a Bayer Return Goods Authorization. You acknowledge that the disposables and the equipment are a system and your actions regarding your equipment may invalidate your warranty on the disposables.

During the warranty period, there shall be no charge for any action deemed necessary by Bayer, including parts, travel, or labor to fulfill the terms of the warranty, during local business hours of 8:30 a.m. to 5:00 p.m., Monday through Friday, except Bayer holidays.

SERVICES WARRANTY

If this Quote includes a service agreement that covers Corrective Maintenance, there will be no charge, for the period stated on the agreement, for any action (parts, labor, travel) deemed necessary by Bayer to service the equipment, excluding those items listed under "Exceptions". Bayer will perform on-site Corrective Maintenance during the hours specified on the maintenance program purchased. Buyer shall pay, as an additional charge for on-site Corrective Maintenance, all field labor and travel time, outside normal hours at Bayer's current service rates, including any appropriate premiums.

RRANTY ON REPAIRS: All materials, labor and service vided hereunder are warranted to be free of defects in material or workmanship for the longer of the term of this agreement or ninety (90) days from the date provided.

PREDICTIVE MAINTENANCE SCHEDULE: If this Quote includes a service agreement, Bayer shall perform Predictive Maintenance on the Product(s) during the hours specified in the maintenance program purchased. For Injector Products, Bayer will perform Predictive Maintenance within the first sixty (60) days of the effective date of the agreement or within twelve (12) months from the last PM provided by Bayer, unless otherwise agreed. Predictive Maintenance performed outside of PM Hours will be charged an additional one half (1/2) of Bayer's current hourly service rate, including any applicable premiums.

UPTIME GUARANTEE: If this Quote includes a service agreement that includes an uptime guarantee the following language applies: THIS PROVISION IS NOT APPLICABLE FOR PRODUCT PURCHASES—CUSTOMERS ARE ONLY ENTITLED TO UPTIME GUARANTEES IF THEY PURCHASE SELECTED SERVICE AGREEMENTS. For any calendar quarter during the term of this service agreement, and as per the terms of the service agreement, Bayer guarantees that the Product(s) will maintain a level of uptime equal to or greater than 97%.

Uptime is defined as the state when the Product(s) is working and/or available for use to your satisfaction. Downtime is defined as the state when the system is not operable due to breakdown, performance of repairs, or failure to perform according to specifications. The period of downtime shall be from notification of the manufacturer's service call center (1-800-633-7237) until the Product(s) is returned/presented to the designated representative properly functioning and ready for use. Scheduled routine preventive maintenance, scheduled upgrades of Product(s) or software, operator error in use of the Product(s), failures designated under "Exceptions" of the terms of the service agreement, and external failures (i.e., power loss) shall not be considered downtime. The effectiveness level is computed as follows:

Uptime will be calculated using the following formula:
Uptime = (T-TNF) x 100

Where "T" is the total number of hours (24 hours/day x 7 days/week x 13 weeks) and "TNF" is the number of covered hours (less any time a loaner or consigned spare part is made available the Product(s), or any component of the Product(s) is not functional during the quarter. "TNF" will be measured beginning with the time of initial notification to Bayer that the Product(s) is inoperable for clinical use and the time the Product(s) is available again for clinical use. If any portion of the total functionality of the Product(s) is unavailable for operational use, the Product(s) will be considered down.

Downtime will not be calculated for (i) hours that are outside of contracted coverage terms, (ii) any malfunction or damage described under "Exceptions" in the manufacturers extended warranty or extended service agreement terms, (iii) scheduled preventive maintenance, or any other scheduled event, including

those for the convenience of You, (iv) malfunctions caused by operator error, or (v) abuse of the Product(s), dead batteries, use of the Product(s) beyond its intended use or failure resulting from changes to the operator environment (i.e., scanner software, upgrades, changes, new magnet, room construction, etc.).

You will calculate uptime after each calendar quarter and will notify Bayer of any incident of non-conformance within 15 days of any such non-conformance. If uptime is less than 97%, then Bayer, upon verification, will extend the term of the service agreement without charge by one week for every full day that the Product(s) or any component of the Product(s) thereof is not operational beyond the allowable 3% level.

EXCEPTIONS TO PRODUCT WARRANTY AND SERVICE AGREEMENT COVERAGE

Your actions may invalidate this warranty. If Bayer determines that an equipment or disposable problem is due to any of the following, you agree to pay Bayer for all labor, travel, material handling and shipping at Bayer's, or Bayer's agents, standard rates:

Malfunctions and Damage

a) Malfunction or damage due to abuse, misuse or spillage of any type of fluid in or on the unit.

Malfunction due to operator error, including failing to follow specified provisions of the Operations Manual.

c) Malfunction or damage due to unauthorized modification or repair. Unauthorized actions may jeopardize functionality, reliability, or operator and patient safety. Therefore any claim caused by unauthorized modification or repair shall not be covered by this warranty and Bayer is relieved from any further obligation. Bayer must review and authorize all modifications and repairs. This service may be obtained by contacting the Bayer Service Department.

d) Malfunction or damage due to the use of non-Bayer or non-approved accessories. The use of accessories in connection with the equipment may jeopardize functionality, reliability or operator and patient safety. Therefore any claim caused by the use of non-Bayer or non-approved accessories (such as non-Bayer disposables or in the case of any PET/CT product, the use of vials or vial shields that are not approved by Bayer) shall not be covered by this warranty and Bayer is relieved from any further obligation.

e) Damage by fire, floods, or other disaster commonly known as "Acts of God".

f) If the Products include any Counterpoise system, any system malfunction, damage or failures due to improper installation or not meeting Bayer's specific requirements for level and plumb and/or loading as specified in the Bayer manuals.

g) If the Products include any Counterpoise system, any ceiling or wall support structure used to mount or support an Injector.

h) Overhead Counterpoise System is excluded from Bayer's warranty. Bayer does not in any way warrant such structure

i) Failures caused by network outages or improper network configuration.

j) Specific services plans may include additional exceptions so please review the details of your service plan.

WARRANTY EXCLUSIONS

EXCEPT AS PROVIDED IN THE ABOVE WARRANTY SECTION, BAYER EXPRESSLY DISCLAIMS ALL WARRANTIES OR CONDITIONS OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, NON INFRINGEMENT AND FITNESS FOR A PARTICULAR PURPOSE (WHETHER OR NOT IS AWARE OF YOUR INTENDED USE OF THE PRODUCT), AND ALL SUCH WARRANTIES ARE EXPRESSLY EXCLUDED. IN NO EVENT SHALL BAYER BE LIABLE FOR ANY LOST PROFITS OR INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE USE OR OPERATION OF BAYER'S PRODUCT OR SERVICE. BAYER WILL NOT BE RESPONSIBLE FOR DAMAGES THAT EXCEED THE PAYMENT, IF ANY, RECEIVED BY BAYER FOR THE PRODUCT OR SERVICES FURNISHED, OR TO BE FURNISHED, UNDER THIS AGREEMENT. Some states do not allow the exclusions on limitation of incidental or consequential damages, so the above limitations may not apply.

This Limited Warranty gives you specific legal rights, and you may also have other rights.

SOFTWARE WARRANTY

If the Products include embedded software or if you are purchasing software, Bayer warrants that the software will substantially conform to the functional specifications contained in the Operations Manual for one year following delivery. This warranty shall not apply if you use the software in a manner that is not authorized or not in accordance with the user instructions or if you modify the Products or the software or if a party other than Bayer provides service to the Products or software. Bayer does not warrant that the software will operate uninterrupted or that it will be free from minor defects or errors that do not materially affect its performance. Your sole and exclusive remedy for any damages or loss in any way connected with the software whether due to Bayer's negligence or breach of any other duty shall be, Bayer's option: i) to bring the performance of the software into substantial compliance with the functional specifications or ii) return of an appropriate portion of any payment by you with respect to the portion of the software that is not functioning.

INDEMNIFICATION

Bayer agrees to indemnify, defend and hold you harmless from any liability, loss, expense, cost, claim or judgment (including attorneys fees), arising out of any claim by a third party for property damage, or personal injury or death where the product or

services were alleged to have caused or contributed to the damage, injury or death, provided that this indemnification does not extend to injuries, damages or death to the extent caused by the negligence, reckless disregard or intentional acts of you or any third party.

FORCE MAJEURE

Bayer will not be responsible for delays or non-performance directly or indirectly caused by any acts of God, fire, explosion, flood, war, accident, action by governmental authority, inability to procure supplies and raw materials, delays in transportation, work stoppage, court order, and other causes beyond Bayer's reasonable control.

COMPLIANCE WITH LAWS/EXPORT

In addition to any rights and remedies specifically identified here in this Quote, Bayer shall have all rights and remedies conferred by law. Bayer shall not be required to perform its obligations under this Quote if you have defaulted (e.g., failed to pay) under this Quote or any other contract involving Bayer. This Agreement shall be construed in accordance with the laws of the Commonwealth of Pennsylvania, United States of America. You warrant that you and will remain in compliance with all export and re-export requirements, laws and regulations of the United States of America and any other applicable export and re-export laws and regulations.

HIPAA

Bayer represents that it is not a Business Associate as defined in the Health Insurance Portability and Accountability Act ("HIPAA"). The functions Bayer is required to perform hereunder do not require the use or disclosure of Protected Health Information ("PHI"). To the extent any disclosure of PHI does occur, it is incidental and covered under the incidental disclosure rule found in 45 CFR 164.502(a)(1). In addition, to the extent any such incidental disclosure does occur, Bayer agrees to keep all such information confidential.

SERVICE AGREEMENT CANCELLATION

Bayer may terminate any Service Agreement by giving written notice to you if you have not made payment by the due date or if you do not give Bayer access to the equipment at the scheduled time for service. You may cancel this Agreement at any time by giving sixty (60) days prior written notice to the Bayer Service Department. If the Agreement is terminated for any reason Bayer shall refund to you an amount equal to the amount you prepaid for the service that year less the assessed value of any Engineered Predictive Maintenance ("EPM") performed and the assessed value of any remaining agreement covered. If the EPM was performed and at least one onsite emergency service event was performed during the agreement period, the agreement shall be considered fulfilled and no refund for that service year will be due you.

VirtualCare® REMOTE SERVICE. Bayer may provide remote diagnostic and monitoring services on the products under this Agreement using Bayer's proprietary hardware and software (the "Maintenance Materials"). Bayer provides the Maintenance Materials to you for use with the VirtualCare service. You have no right to use the Maintenance Materials except for the VirtualCare service and title to the Maintenance Materials remains with Bayer at all times. You may not sell, assign or transfer the Maintenance Materials to any third party. If you terminate VirtualCare service for any reason, you must contact Bayer to facilitate the return of the hardware to Bayer. If you fail to return the hardware to Bayer or breach the use provisions set forth herein, Bayer may remove the hardware from your site. The Maintenance Materials are and will remain Bayer's sole and exclusive property and Bayer does not grant you any licensed rights in the Maintenance Materials. In the event this Agreement is terminated or is not renewed, within sixty (60) days of contract termination or expiration Bayer will disable the VirtualCare system so that all auto alerts originating with the VirtualCare system will be muted and Bayer will no longer receive such notices. If the VirtualCare system is disabled by Bayer or taken offline by you, Bayer will no longer continue its current practice of automatic remote monitoring and error code detection, or proactive event assessment and diagnostics. You understand that the VirtualCare connection may still exist but that no information will be relayed to Bayer from your systems.

EXHIBIT 3

Siemens Medical Solutions USA, Inc.
40 Liberty Boulevard, Malvern, PA 19355
Fax: (866) 306-6681

SIEMENS REPRESENTATIVE
Gregory Thudium - (314) 604-8452

Date: 5/23/2017

Customer Number: 0000004423

POPLAR BLUFF REGIONAL MEDICAL
3100 OAK GROVE RD
POPLAR BLUFF, MO 63901

Siemens Medical Solutions USA, Inc. is pleased to submit the following quotation for the products and services described herein at the stated prices and terms, subject to your acceptance of the terms and conditions on the face and back hereof, and on any attachment hereto.

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Contract Total: $1,218,012
(total does not include any Optional or Alternate components which may be selected)

Proposal valid until 6/28/2017

Estimated Delivery Date: 11/30/2017

Estimated delivery date is subject to change based upon factory lead times, acceptance date of this quote, customer site readiness, and other factors. A Siemens representative will contact you regarding the final delivery date.

This proposal includes the trade-in of equipment referenced in Trade Sheet Project #2015-0740.

Pricing contingent on multi-unit purchase through the CHS Corporate Group Buy.

Notwithstanding anything to the contrary stated in the Terms and Conditions, this system is provided with an additional twelve (12) months of warranty, for a total of twenty-four (24) months of warranty.

Siemens Medical Solutions USA, Inc.
,0 Liberty Boulevard, Malvern, PA 19355
Fax: (866) 306-6681

SIEMENS REPRESENTATIVE
Gregory Thudium - (314) 604-8452

Accepted and Agreed to by:

Siemens Medical Solutions USA, Inc.		**POPLAR BLUFF REGIONAL MEDICAL**	
By (sign):		By (sign):	
Name:	Gregory Thudium	Name:	
Title:	Account Executive	Title:	
Date:		Date:	

By signing below, signor certifies that no modifications or additions have been made to the Quotation. Any such modifications or additions will be void.

By (sign): _____

Siemens Medical Solutions USA, Inc.
0 Liberty Boulevard, Malvern, PA 19355
Fax: (866) 306-6681

SIEMENS REPRESENTATIVE
Gregory Thudium (314) 604-8452

Quote Nr: **1-JD0RW1 Rev. 6**

Terms of Payment: 00% Down, 90% Delivery, 10% Installation
Free On Board: Destination

Purchasing Agreement: HEALTHTRUST PURCHASING GRP

HEALTHTRUST PURCHASING GRP terms and conditions apply to Quote Nr 1-JD0RW1

MAGNETOM Aera - USA

All items listed below are included for this system: *(See Detailed Technical Specifications at end of Proposal.)*

Qty	Part No.	Item Description	Extended Price
1	14416900	**MAGNETOM Aera - System** MAGNETOM Aera is designed to provide you the versatility you need to meet the increasing demands in healthcare. Maximize 1.5T with its core technologies Tim(r) 4G and Dot(r), along with its comprehensive application portfolio and experience unique functionalities to increase patient comfort. Every case. Every day. System Design - Short and open appearance (145 cm system length and 70 cm Open Bore Design) to reduce patient anxiety and claustrophobia - Whole-body superconductive Zero Helium Boil-Off 1.5T magnet - Actively Shielded water-cooled Siemens gradient system for maximum performance - TrueForm Magnet and Gradient Design Tim 4G (Total imaging matrix in the 4th generation) for excellent image quality and speed - Siemens unique DirectRF(tm) technology enabling the all digital-in/ digital-out design - Dual-Density Signal Transfer Technology - Head/Neck 20 DirectConnect - Spine 32 DirectConnect - Body 18 - Flex Large 4 Flex Small 4 - Flex Coil interface - Tim Coil interface Dot (Day optimizing throughput) for higher consistency, flexibility and efficiency - Dot Display - Dot Control Centers - Brain Dot Engine Tim Application Suite allowing excellent head-to-toe imaging - Neuro Suite - Angio Suite - Cardiac Suite - Body Suite	$1,871,000

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Qty	Part No.	Item Description	Extended Price
		- Onco Suite - Breast Suite - Ortho Suite - Pediatric Suite - Scientific Suite Further included - High performance host computer and measurement and reconstruction system - Siemens uniqueTimCT FastView localizer and CAIPIRINHA - syngo MR software including - 1D/2D PACE - BLADE - iPAT² - Phoenix - Inline Diffusion - WARP - MDDW (Multiple Direction Diffusion Weighting) - CISS - DESS The system (magnet, electronics and control room) can be installed in 30sqm space. For system cooling either the Eco Chiller options or the Separator is required.	
1	14416901	**Tim [204x48] XJ Gradients #Ae** Tim [204x48] XJ-gradient performance level Tim 4G with it's newly designed RF system and innovative coil architecture enables high resolution imaging and increased throughput. Up to 204 simultaneously connected coil elements in combination with the standard 48 independent RF channels, allow for more flexible parallel imaging. Maximum SNR through the new Tim 4G matrix coil technolgy. XJ - gradients The XJ- gradients are designed combining high performance and linearity to support clinical whole body imaging at 1.5T. The force compensated gradient system minimizes vibration levels and accoustic noise. The XJ gradients combine 33 mT/m peak amplitude with a slew rate of 125 T/m/s.	$1
1	14416906	**Tim Dockable Table #Ae** The Tim Dockable Table is designed for maximum patient comfort and smooth patient preparation. Tim Dockable Table can support up to 250 kg (550 lbs) patients without restricting the vertical or horizontal movement. The one step docking mechanism and the innovative multi-directional navigation wheel ensure easy maneuvering and handling. Critically ill or immobile patients can now be prepared outside the examination room for maximum patient care, flexibility and speed.	$75,000
1	08464872	**PC Keyboard US english #Tim** Standard PC keyboard with 101 keys.	$1
1	14416914	**Pure White Design #T+D** The MAGNETOM Aera / MAGNETOM Skyra design is available in different light and appealing variants which perfectly integrates into the different environments. The color of the main face plate cover of the Pure White Design Variant with the integrated Dot Control Centers and the unique Dot Display is brilliant white surrounded by a brilliant silver trim. The asymetrical deco area on the left side is colored white matte and also with a brilliant surrounding silver trim. The table cover is presented also in the same color and material selection.	$1
1	14446650	**SW syngo MR E11C** syngo MR E11C software with new features and applications. GOBrain protocols (for Aera and Skyra with 48 or more rf-channels).	$0

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Qty	Part No.	Item Description	Extended Price
1	14441748	**Quiet Suite #T+D** Quiet Suite enables complete, quiet examinations for neurology and orthopedics with at least 70% reduction in sound pressure levels.	$0
	14441866	**DotGO Routine Package #T+D** The DotGO Routine Package includes both: - Spine Dot Engine and - Large Joint Dot Engine. As a package they offer a comprehensive set of workflows with guidance and automation, for standardized image quality in Spine and MSK MR imaging. The Spine Dot Engine provides the functionality of Inline Composing and Tim Planning Suite for streamlining workflows in all spine imaging. Tools, such as auto-positioning and vertebral recognition with AutoAlign Spine, AutoCoverage and Spine Labelling support and optimize reproducibility for your cervical, thoracic and lumbar spine imaging for all clinical indications. The Large Joint Dot Engine enhances standardization of the knee, hip and shoulder workflows and optimizes reproducible image quality by incorporating automation tools, such as anatomically based auto-positioning (AutoAlign). Dedicated imaging techniques, such as Advanced WARP, are included and can help to expand the access of diagnostic MRI to a broader range of patient types.	$27,500
1	14405224	**Composing syngo #Tim** This application provides dedicated evaluation software for creation of full-format images from overlapping MR volume data sets and MIPs (starting from syngo MR B13) acquired at multiple stages.	$15,000
1	14441759	**FREEZEit Body MRI Package #T+D** FREEZEit Body Package contains two robust sequences for advanced body imaging: TWIST VIBE and StarVIBE. - TWIST VIBE is a new fast, high-resolution 4D imaging sequence for multi-arterial liver imaging. - StarVIBE is a motion insensitive VIBE sequence using a stack-of-stars trajectory.	$55,000
1	14416960	**Shoulder 16 Coil Kit #Ae** The new Tim 4G coil technology with Dual Density Signal Transfer and SlideConnect Technolgy combines key imaging benefits: excellent image quality, high patient comfort, and unmatched flexibility. The Shoulder 16 Coil Kit for examinations of the left or right shoulder consists of a base plate and two different sized iPAT compatible 16 channel coils (Shoulder Large 16 and Shoulder Small 16). These will be attached and can be relocated on the base plate.The 16-element coils with 16 integrated pre-amplifiers ensure maximum signal-to-noise ratio. Shoulder Large 16 and Shoulder Small 16 will be connected via a SlideConnect plug for fast and easy coil set-up and patient preparation.	$60,000
1	14416962	**Foot/Ankle 16 #Ae** The new Tim 4G coil technology with Dual Density Signal Transfer and DirectConnect Technolgy combines key imaging benefits: excellent image quality, high patient comfort, and unmatched flexibility. Foot/Ankle 16 for examinations of the left or right foot and ankle region consists of a base plate and an iPAT compatible 16-channel coil and allows high resolution imaging of the foot and ankle within one examination. Foot/Ankle 16 is a cable-less coil and will be connected via DirectConnect for fast and easy patient preparation.	$75,000
1	14416963	**2/4/8-ch Sentinelle BreastCoil #Ae** The 2-/4-/8-channel Sentinelle Breast Coil consists of a positioning frame with exchangeable coils with different numbers of channels as described in detail in the E text. The 2-/4-/8-channel Sentinelle Breast Coil can be used as an 8-channel imaging coil, 4-channel biopsy coil for lateral biopsy access as well as a 2-channel biopsy coil for medial biopsy access. This coil provides a large biopsy access. The preamplifiers are integrated into the coil. The coil is iPAT-compatible.	$127,000

Qty	Part No.	Item Description	Extended Price
		A positioning guidance is provided.	
1	08857828	**UPS Cable #Tim** Power cable for connecting the UPS Powerware PW 9130-3000I (14413662) to the ACC of MAGNETOM Tim and MAGNETOM Tim+Dot systems for backing up the computer. Standard cable length: 9 m.	$1,500
1	14413662	**UPS Powerware PW9130G-3000T-XLEU** UPS system Eaton PW9130G-3000T-XLEU for MAGNETOM Tim, MAGNETOM Tim+Dot and MAGNETOM Symphony systems for safeguarding computers. Power output: 3.0 kVA / 2.7 kW Bridge time: 5 min full load / 14 min half load Input voltage: 230 VAC	$2,700
1	14413663	**UPS Battery module** UPS battery module Eaton PW 9130N-3000T-EBM for all MAGNETOM Tim, MAGNETOM Tim+Dot and MAGNETOM Symphony systems for safeguarding computers. Extension for: PW9130I-3000T Battery type: Closed, maintenance-free Extension of the bridge time to: 24 minutes with a module Dimensions (H x W x D): Battery module: 346 x 214 x 412 mm Incl. bracket set Weight: approx. 50 kg	$1,000
1	MR_STD_RIG_INST	**MR Standard Rigging and Installation** MR Standard Rigging and Installation This quotation includes standard rigging and installation of your new MAGNETOM system Standard rigging into a room on ground floor level of the building during standard working hours (Mon. - Fri./ 8 a.m. to 5 p.m.) It remains the responsibility of the Customer to prepare the room in accordance with the SIEMENS planning documents Any rigging requiring a crane over 80 tons and/or special site requirements (e.g. removal of existing systems, etc.) is an incremental cost and the responsibility of the Customer. All other "out of scope" charges (not covered by the standard rigging and installation) will be identified during the site assessment and remain the responsibility of the Customer.	$0
1	MR_CRYO	**Standard Cryogens**	$8,000
1	MR_INITIAL_32	**Initial onsite training 32 hrs** MR_INITIAL_32 Up to (32) hours of on-site clinical education training, scheduled consecutively (Monday - Friday) during standard business hours for a maximum of (4) imaging professionals. Training will cover agenda items on the ASRT approved checklist. Uptime Clinical Education phone support is provided during the warranty period for specified posted hours. This educational offering must be completed (12) months from install end date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.	$7,800
1	MR_FOLLOWUP_24	**Follow-up training 24 hrs** Up to (24) hours of follow-up on-site clinical education training, scheduled consecutively (Monday - Friday) during standard business hours for a maximum of (4) imaging professionals. Uptime Clinical Education phone support is provided during the warranty period for specified posted hours. This educational offering must be completed (12) months from install end date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.	$6,300

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Qty	Part No.	Item Description	Extended Price
1	MR_INT_DOT BCLS	**MR Dot Training Class** Tuition for (1) imaging professional to attend Classroom Course at Siemens Training Center. The objectives of this class are to introduce the user interface of the common syngo platform, including Dot, and instructions on building protocols, demonstration of software functions, and hands-on sessions. This class includes lunch, economy airfare, and lodging for (1) imaging professional. All arrangements must be arranged through Siemens designated travel agency. This educational offering must be completed (12) months from install end date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.	$4,500
1	MR_A_INT_DO T_BCLS	**MR Dot Training Class** Tuition for (1) imaging professional to attend Classroom Course at Siemens Training Center. The objectives of this class are to introduce the user interface of the common syngo platform, including Dot, and instructions on building protocols, demonstration of software functions, and hands-on sessions. This class includes lunch, economy airfare, and lodging for (1) imaging professional. All arrangements must be arranged through Siemens designated travel agency. This educational offering must be completed (12) months from install end date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.	$4,500
1	4MR5142869	**Armrest #MR**	$240
1	MR_PREINST_ DOCK	**T+D Preinstall kit for dockable table**	$550
1	ML11685	**MR Wall sign -English** Highly durable 1mm PVC wall signs with high-tack, double-back tape. Sticks to most any surface. English. 12" x 18".	$59
1	MRISMNS0001	**MRI Patient Audio System** The MRI Patient Audio System is to be installed in the technologist room and is connected to the Siemens intercom system. The package provides the following benefits: • Create custom, commercial-free radio stations based on artist, song or genre preferences • Avoid any AM/FM tuning issues that may occur in RF-shielded rooms • Compatible with all popular audio apps (e.g. tunein, Spotify, iTunes, Audible, iHeartRadio, Pandora, etc.) Includes amplifier; all cables and adapters; Bose Companion 2 technologist speakers; 3.5 mm to RCA cable; and customized iPAD Mini with all original accessories and TuneIn Radio Pro App (pre-paid and installed). The MR Stereo can play regular radio, Internet radio (depending on quality of and access to Radio wave signals and Wi-Fi signals) and device (iPAD) stored audio content. Optimal performance requires access to radio wave signals for regular radio and Wi-Fi signals for Internet radio through the facility's wireless network. Installation is not included unless purchased with the Siemens system. Includes 3 year limited liability warranty on all system components through MRIaudio.	$2,600
1	KKTECOMR_6 0	**KKT ECOCHILLER 133L** The KKT ECO 133 -L chiller is a dedicated 20°C cooling system for MAGNETOM Aera and MAGNETOM Skyra which automatically adapts to the different cooling requirements (e.g. system in operation, standby, ...) to reduce the energy consumption for cooling. The cooling system must be used in combination with the IFP (Interface Panel), if there is no on-site chilled water supply at all. The IFP is included in the scope of supply.	$28,515
	MR_BTL_INST ALL	**MR Standard Rigging & Install**	$15,000

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Qty	Part No.	Item Description	Extended Price
1	MR_PM	**MR Project Management** A Siemens Project Manager (PM) will be the single point of contact for the implementation of your Siemen's equipment. The assigned PM will work with the customer's facilities management, architect or building contractor to assist you in ensuring that your site is ready for installation. Your PM will provide initial and final drawings and will coordinate the scheduling of the equipment, installation, and rigging, as well as the initiation of on-site clinical education.	$0
1	SY_PR_TEAMPLAY	**teamplay Welcome & Registration Package** teamplay is a cloud-based network that brings together your imaging modality users, the systems' dose and utilization data, and the users' expertise to help you improve the delivery of care to your patients. Basic features are provided free of charge. Premium features (benchmarking, non-Siemens devices) are provided on a trial basis for three months at no charge, and may be used thereafter on a subscription fee basis. To register: http://teamplay.siemens.com/#/institutionRegistration/1	$0
1	CHILINST_AVT	**Chiller Start-up and Warranty for TIM**	$3,750
1	KDS700SOLO	**FerrAlert Solo** FerrAlert Solo is a single ferromagnetic detector installed on a wall, outside the magnet room. The FerrAlert Solo detector will help ensure the safe screening of the MR patient by scanning for ferromagnetic materials before he/she reaches the entrance way to the MRI scanner. Features include: 12 sensors, no touch activation, 6 detection zones, adjustable sensitivity and visual and audible alerts. Includes 3 year warranty and installation from Kopp Development.	$18,056
1	14407261	**MR Workplace Container, 50cm** 50 cm wide extra case for the syngo host computer with sliding front door to allow change of storage media (CD/DVD/USB).	$2,000
1	14407259	**MR Workplace Table, height adjust.** The table is suitable for the syngo Acquisition Workplace and the syngo MR Workplace based on syngo hardware. This 110V version has motorized table height adjustment.	$2,500
1	14402527	**SWI #Tim** Susceptibility Weighted Imaging is a high-resolution 3D imaging technique for the brain with ultra-high sensitivity for microscopic magnetic field inhomogeneities caused by deoxygenated blood, products of blood decomposition and microscopic iron deposits. Among other things, the method allows for the highly sensitive proof of cerebral hemorrhages and the high-resolution display of venous cerebral blood vessels.	$25,000
1	14416972	**Tim Coil Interface 1.5T** Coil adapter plug for up to 8 receive and 1 transmit channels, in order to connect existing dedicated knee and breast coils (Tx/Rx 15-channel Knee Coil, CP Extremity Coil, 4-channel BI Breast Coil, 16-channel AI Breast Coil, (2/4)/8-channel Sentinelle BreastCoil and (2/10)/16-channel Sentinelle BreastCoil) with all MAGNETOM 1.5T Systems using Tim 4G-technology.	$7,500
1	14418573	**1 step ahead, [204x48] XQ Grad. Elevate** With this package you will receive the Tim [204x48] performance level Tim 4G offers DirectRF a completely redesigned RF architecture. This new all digital-in/ digital-out design integrates all RF transmit and receive components at the magnet, eliminating analog cables for true signal purity. This compact and efficient design enables a dynamic feedback control for temporal stability and power linearity. The all-new innovative coil architecture packs more coil elements in a smaller space. Therefore up to 204 coil elements can be simultaneously connected. The newly designed ultra high density array is an essential part supplementing Tim4G. Combined with the 48 independent RF channels advanced iPAT capabilities and SNR are enabled. An additional benefit of multiple coil elements and receiver channels is improved performance in multi-directional, i.e. three dimensional, high-speed, high-resolution iPAT in the head-feet,	$0

Qty	Part No.	Item Description	Extended Price
		anterior-posterior or left-right directions. This option includes also Advanced High Order Shim. XQ gradients Siemens XQ gradients provide actively shielded, water cooled world-class gradients. All axes are force-compensated. The XQ gradients have: Maximum gradient amplitude of 45 mT/m, per axis, i.e. 78 mT/m vector summation gradient performance, max. slew rate 200 T/m/s per axis, i.e. 346 T/m/s vector summation, minimal rise time 225 µs, from 0 to 45 mT/m amplitude Max. output voltage for each of the gradient axes 2250 V Max. output current for each of the gradient axes 900 A Separate cooling channels that simultaneously cool primary and secondary coils allow the application of extremely gradient intensive techniques in a new class of performance. 100% duty cycle for fast and demanding techniques such as ultra-short TE MRA in continuous operation, thin slice single breath-hold liver studies and EPI imaging techniques (all optional in appropriate clinical packages). Variable Field-of-View selection from 0.5 cm to 50 cm (up to 45	
1	14441789	**Tx/Rx 15-channel Knee Coil DDST Elevate** New 15-channel transmitter/receiver coil for joint examinations in the area of the lower extremities. Main features : - 15-element design (3x5 coil elements) with 15 integrated preamplifiers, - iPAT-compatible - SlideConnect Technology	$0
	14441788	**Hand/Wrist 16 #Ae (Elevate)** The new Tim 4G coil technology with Dual Density Signal Transfer and SlideConnect Technology combines key imaging benefits: excellent image quality, high patient comfort, and unmatched flexibility. Hand/Wrist 16 for examinations of the left or right hand and wrist region consists of a base plate and an iPAT compatible 16-channel coil and allows high resolution imaging of the wrist and the hand within one examination. Hand/Wrist 16 will be connected via a SlideConnect plug for fast and easy patient preparation.	$0
1	14446611	**Body 18 long #Ae (ELEVATE)** The new Tim 4G coil technology with Dual Density Signal Transfer and SlideConnect Technology combines key imaging benefits: excellent image quality, high patient comfort, and unmatched flexibility: - 18 channels (inherent) or more, if the coil is combined with other coils - Dual Density Signal Transfer - Ultra light-weight - SlideConnect Technology The 18-channel coil with its 18 integrated pre-amplifiers ensures excellent signal-to-noise ratio. The 18 coil elements provide extensive coverage in all directions. The single SlideConnect plug allows for fast and easy patient preparation. The coil's extended cable allows for more flexibility in connector selection which is especially helpful if multiple flexible coils need to be combined and challenging imaging set-ups need to be supported like in therapy imaging (e.g. for combined head-neck exams). The light-weight coil ensures highest patient comfort. The Body 18 1.5T long features:	$0

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Qty	Part No.	Item Description	Extended Price
		- 18-element design with 18 integrated preamplifiers (3 clusters of 6 elements each) - Operates in an integrated fashion with the Spine 32 as an 30 channel body coil (not in combination with the Combi Dockable Table) - Can be combined with further coils for larger coverage - Can be positioned in different orientations (0°, 90°, 180°, 270°) for patient specific adaptations - No coil tuning - iPAT compatible in all directions The highly flexible design supports a wide variety of applications including: - Thorax (incl. heart) - Abdomen - Pelvis - Hip	
1	14456114	**Advanced Diffusion (ELEVATE)** Advanced Diffusion is a package consisting of the diffusion-weighted, readout-segmented EPI sequence RESOLVE and the noise reduced QuietX DWI sequence.	$0
1	MR_PR_ELEVATE_2	**MR Elevate Program**	$0
1	MR_EXTEND_WARRANTY	**MR CHS Bulk Buy 12 months Extended Warranty**	$143,411
1	MR_WARROFFSET	**MR CHS Bulk Buy 12 months Extended Warranty Offset**	$143,411
1	MR_TRADE_IN_ALLOW	**2006 GE 1.5T Signa HD EchoSpeed 8 Channel, Project #2015-740, deinstall 10/2017, expires 10/31/2017, ($109,000)**	$109,000
1	MR_ADDL_RIGGING	**Additional Rigging MR $13,790**	$13,790

List Total:	**$2,461,363**
Less Discount:	**($1,134,351)**
Less Promotion(s):	**$0**
Less Trade-in:	**($109,000)**
System Total:	**$1,218,012**

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OPTIONS on Quote Nr: **1-JD0RW1 Rev. 6**

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OPTIONS for MAGNETOM Aera - USA

All items listed below are OPTIONS and will be included on this system ONLY if initialed: *(See Detailed Technical Specifications at end of Proposal.)*

Qty	Part No.	Item Description	Extended Price	Initial to Accept
	MAGLIFEBASICP	**Maglife Serenity Basic Plus** Schiller Maglife Serenity MR patient monitor - Basic Plus package. Includes: Mobile cart, 6 hour battery, installation, training and one year warranty from Schiller. Features: ECG, SPO2, Respiratory, non-invasive blood pressure, ETCO2 and Inspired and expired CO2, Inspired and expired O2. Maglife monitor: Multi Parameter Monitor for MR Environment. Mains Connection and Battery Operation. Feature: ECG, Fiber optic SpO2, NIBP, Magnetic field Measurement. Build by: 12,1" Display unit, Main unit, power supply. Accessories: adult and pediatric ECG electrodes, "SkinPrep" Gel, ECG preamplifier, ECG cable (3 wire Clip), 3 Cuffs (adult, pediatric, neonate), SpO2 sensor adult (pediatric on request), Mains cable, patient monitor sample lines, Airway "T" Adapters, Water trap, FIO2 fuel cell, pressure reducer & manometer, Calibration Gas.	+ $51,277	X_____
	MAGLIFEADV	**Maglife Serenity Advanced** Schiller Maglife Serenity MR patient monitor - Advanced package with Magscreen monitor. Includes: Mobile cart, Magscreen monitor (with printer), 6 hour battery, installation, training and one year warranty from Schiller. Features: ECG, SPO2, Respiratory, non-invasive blood pressure, ETCO2, O2, NO2, Inspired and expired CO2, Inspired and Expired Agents (2 agents simultaneously with auto ID), Inspired N2O, Inspired and expired O2. WiFo (wireless within Faraday Cage, wired to Magscreen). Maglife monitor: Multi Parameter Monitor for MR Environment. Mains Connection and Battery Operation. Feature: ECG, Wireless SpO2, NIBP, Magnetic field Measurement. Build by: 12,1" Display unit, Main unit, power supply. Magscreen: 12.1 inch TFT screen for remote display and control of MAGLIFE Serenity, linked with bi-directional Fiber Optic and/or network. Accessories: adult and pediatric ECG electrodes, "SkinPrep" Gel, ECG preamplifier, ECG cable (3 wire Clip), 3 Cuffs (adult, pediatric, neonate), SpO2 sensor adult (pediatric on request), Mains cable, patient monitor sample lines, Airway "T" Adapters, Water trap, FIO2 fuel cell, pressure reducer & manometer, Calibration Gas.	+ $77,279	X_____
	BMRXPENPNL	**MRXperion penetration panel** Includes penetration panel and installation by Bayer. To be selected only if the customer has no wall outlets in the MR suite and requires the power to be sourced from outside the room.	- $1,800	X_____

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Qty	Part No.	Item Description	Extended Price	Initial to Accept
1	14416952	**Coil Storage Cart #T+D** Specially designed non-ferromagnetic cart for easy storage of the most commonly used coils and accessories.	+ $2,550	X

FINANCING: The equipment listed above may be financed through Siemens. Ask us about our full range of financial products that can be tailored to meet your business and cash flow requirements. For further information, please contact your local Sales Representative.

ACCESSORIES: Don't forget to ask us about our line of OEM imaging accessories to complete your purchase. All accessories can be purchased or financed as part of this order. To purchase accessories directly or to receive our accessories catalog, please call us directly at 1-888-222-9944 or contact your local Sales Representative.

COMPLIANCE: Compliance with legal and internal regulations is an integral part of all business processes at Siemens. Possible infringements can be reported to our Helpdesk "Tell us" function at www.siemens.com/tell-us.

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Siemens Medical Solutions USA, Inc. General Terms and Conditions

1. GENERAL

1.1 Contract Terms and Acceptance. These terms and conditions constitute an integral part of any contract between Seller and Purchaser identified on the first page hereof and shall govern the sale of the products identified in such contract ("Products"). Purchaser acknowledges that this is a commercial and not a consumer transaction. Purchaser shall be deemed to have assented to, and to have waived any objection to, this Agreement upon the earliest to occur of any of the following: Purchaser's completion or execution of this Agreement; Purchaser's acceptance of all or any part of the Products; Purchaser's issuance of a purchase order for any Products identified on Seller's quotation or proposal; or delivery of the Products to the common carrier for shipment pursuant hereto.

1.2 Refurbished/Used Products. For Products identified on this Agreement as used or refurbished Products, these Products have been previously owned and used. When delivered to Purchaser, such Products will perform in accordance with the manufacturer's specifications. Since pre-owned Products may be offered simultaneously to several customers, the availability of such Products to Purchaser cannot be guaranteed. If the Products are no longer available, Seller will use its best efforts to identify other suitable products in its inventory. If substitute products are not acceptable to Purchaser, then Seller will cancel the order and refund to Purchaser any deposits previously paid. The warranty period for any used or refurbished Products will be separately stated on the quotation.

1.3 Third Party Products. If this Agreement includes the sale of third party products not manufactured by Seller, then Purchaser agrees and acknowledges that (a) Purchaser has made the selection of these products on its own, (b) the products are being acquired by Seller solely at the request of and for the benefit and convenience of Purchaser, (c) no representation, warranty or guarantee has been made by Seller with respect to the products, ,d) the obligation of Purchaser to pay Seller for the products is absolute and unconditional, (e) use of the products may be subject to Purchaser's agreement to comply with any software licensing terms imposed by the manufacturer; and (f) unless otherwise indicated by Seller in writing, Seller is not responsible for any required installation, validation, product recall, warranty service, maintenance, complaint handling, or any other applicable FDA regulatory requirements, and the Purchaser will look solely to the manufacturer regarding these services and will assert no claim against Seller with respect to these products.

2. PRICES

2.1 Quotations. Unless otherwise agreed to in writing or set forth in the quotation, all prices quoted by Seller and amounts payable by Purchaser are in U.S. dollars, and include Seller's standard packaging. The prices quoted to Seller assume that the Seller is located in, and will use the Products in, the U.S. If not, such quotation will be void. Unless otherwise stated, the quotation shall only be valid for forty-five (45) days from the date of the quotation.

2.2 Delay in Acceptance of Delivery. Should the agreed delivery date be postponed by Purchaser, Seller shall have the right to deliver the Products to storage at Purchaser's risk and expense, and payments due upon delivery shall become due when Seller is ready to deliver.

3. TAXES

3.1 Any sales, use or manufacturer's tax which may be imposed upon the sale or use of Products, or any property tax levied after readiness to ship, or any excise tax, license or similar fee (excluding the Medical Device Excise Tax as set forth in Section 4191 of the Internal Revenue Code of 1986, as amended) required under this transaction, shall be in addition to the quoted prices and shall be paid by Purchaser. Notwithstanding the foregoing, Seller agrees to honor any valid exemption certificate provided by Purchaser.

4. TERMS OF PAYMENT; DEFAULT

4.1 Payments; Due Date. Unless otherwise set forth in the quotation, Purchaser shall pay Seller as follows: an initial deposit of 10% of the purchase price for each Product is due upon submission of the purchase order, an additional 80% of the purchase price is due upon delivery of each Product, and the final 10% of the purchase price is due upon completion of installation or when the Products are available for first patient use, whichever occurs first. Unless otherwise agreed, all payments other than the initial deposit are due net thirty (30) days from the date of invoice. Seller shall have no obligation to complete installation until the payment due upon delivery is received. Partial shipments shall be billed as made, and payments for such shipments will be made in accordance with the foregoing payment terms.

4.2 Late Payment. A service charge of 1½% per month, not to exceed the maximum rate allowed by law, shall be made on any portion of Purchaser's outstanding balance which is not paid when due. Payment of such service charge shall not excuse or cure Purchaser's breach or default for late payment.

4.3 Payment of Lesser Amount. If Purchaser pays, or Seller otherwise receives, a lesser amount than the full amount provided for under this Agreement, such payment shall not constitute or be construed other than as on account of the earliest amount due Seller. No endorsement or statement on any check or payment or elsewhere shall constitute or be construed as an accord or satisfaction.

4.4 Where Payment Due Upon Installation or Completion. Should any terms of payment provide for either full or partial payment upon completion of installation or thereafter, and completion of installation is delayed for any reason for which Seller is not responsible beyond the installation date set forth in the Notice to Manufacture Letter issued by Seller, as applicable, then the balance of payments shall be due on the day following such installation date.

4.5 Default; Termination. Each of the following shall constitute an event of default under this Agreement: (i) a failure by Purchaser to make any payment when due; (ii) a failure by Purchaser to perform any other obligation under this Agreement within thirty (30) days of receipt of written notice from Seller; or (iii) the commencement of any insolvency, bankruptcy or similar proceedings by or against Purchaser.

Upon the occurrence of any event of default, at Seller's election: (a) the entire amount of any indebtedness and obligation due Seller under this Agreement and interest thereon shall become immediately due and payable; (b) Seller may suspend the performance of any of Seller's obligations hereunder, including, but not limited to, obligations relating to delivery, installation and warranty services; (c) Purchaser shall put Seller in possession of the Products upon demand; (d) Seller may sell or otherwise dispose of all or any part of the Products and apply the proceeds thereof against any indebtedness or obligation of Purchaser under this Agreement; (e) if this Agreement or any indebtedness or obligation of Purchaser under this Agreement is referred to an attorney for collection or realization, Purchaser shall pay to Seller all costs of collection and realization (including, without limitation, a reasonable sum for attorneys' fees); and Purchaser shall pay any deficiency remaining after collection of or realization by Seller on the Products. In addition, Seller may terminate this Agreement upon written notice to Purchaser in the event that Purchaser is not approved for credit or upon the occurrence of any material adverse change in the financial condition or business operations of Purchaser.

4.6 Financing. Notwithstanding any arrangement that Purchaser may make for the financing of the purchase price of the Products, the parties agree that any such financing arrangement shall have no effect on the Purchaser's payment obligations under this Agreement, including but not limited to Sections 4.1 and 4.2 above.

5. EXPORT TERMS

5.1 Unless other arrangements have been made, payment on export orders shall be made by irrevocable confirmed letter of credit, payable in U.S. dollars against Seller's invoice and standard shipping documents. Such letter of credit shall be in an amount equal to the full purchase price of the Products and shall be established in a U.S. bank acceptable to Seller. Purchaser shall have sole responsibility to procure all necessary permits and licenses for shipment and compliance with any governmental regulations concerning control of final destination of Products.

5.2 Purchaser agrees that Products shall not at any time directly or indirectly be used, exported, sold, transferred, assigned or otherwise disposed of in a manner which will result in non-compliance with applicable export Control and US Sanction laws and regulations. If Purchaser purchases a Product at the domestic price and exports such Product, or transfers such Product to a third party for export, outside of the U.S., Purchaser shall pay to Seller the difference between the domestic price and the international retail price of such Product. Purchaser shall deliver to Seller, upon Seller's request, written assurance regarding compliance with this Section in form and content acceptable to Seller.

6. DELIVERY, RISK OF LOSS

6.1 Delivery Date. Delivery and installation dates will be established by mutual agreement of the parties as set forth in the Notice to Manufacture Letter issued

by the Seller, as applicable. Seller shall make reasonable efforts to meet such delivery date(s).

6.2 Risk of Loss; Title Transfer. Unless otherwise agreed to in writing, the following shall apply:

(a) For Products that do not require installation by Seller, and for options and add-on products purchased subsequent to delivery and installation of Products purchased under this Agreement, delivery shall be complete upon transfer of possession to common carrier, F.O.B. Shipping Point, whereupon title to and all risk of loss, damage to or destruction of the Products shall pass to Purchaser.

(b) For Products that require installation by Seller, delivery shall be complete upon delivery of the Products to Purchaser's designated site, F.O.B. Destination; whereupon title to and all risk of loss, damage to or destruction of such Products shall pass to Purchaser upon completion of delivery.

(c) All freight charges and other transportation, packing and insurance costs, license fees, custom duties and other similar charges shall be the sole responsibility of Purchaser unless included in the purchase price or otherwise agreed to in writing by Seller. In the event of any loss or damage to any of the Products during shipment, Seller and Purchaser shall cooperate in making any insurance claim.

7. SECURITY INTEREST/FILING

7.1 Purchaser grants to Seller a security interest in the Products until payment in full by Purchaser. Purchaser shall sign any financing statements or other documents necessary to perfect Seller's security interests in the Products. Purchaser further represents and covenants that (a) it will keep the Products in good order and repair until the purchase price has been paid in full, (b) it will promptly pay all taxes and assessments upon the Products or the use thereof, (c) it will not attempt to transfer any interest in the Products until the purchase price has been paid in full, and (d) it is solvent and financially capable of paying the full purchase price for the Products.

8. CHANGES, CANCELLATION, AND RETURN

8.1 Orders accepted by Seller are not subject to change except upon Seller's written agreement.

8.2 Orders accepted by Seller are non-cancellable by Purchaser except upon Seller's written consent and payment by Purchaser of a cancellation charge equal to 10% of the price of the affected Products, plus any shipping, insurance, inspection and refurbishment charges; the cost of providing any training, education, site evaluation or other services completed by Seller; and any return, cancellation or restocking fees with respect to any Third Party Products ordered by Seller on behalf of Purchaser. Seller may retain any payments received from Purchaser up to the amount of the cancellation charge. In no event can an order be cancelled by Purchaser or Products be returned to Seller after shipment.

8.3 Seller reserves the right to change the manufacture and/or design of its Products if, in the judgment of Seller, such change does not alter the general function of the Products.

9. FORCE MAJEURE

9.1 Seller shall not be liable for any loss or damage for delay in delivery, inability to install or any other failure to perform due to causes beyond its reasonable control including, but not limited to, acts of God or the public, war, civil commotion, blockades, embargoes, calamities, floods, fires, earthquakes, explosions, storms, strikes, lockouts, labor disputes, or unavailability of labor, raw materials, power or supplies. Should such a delay occur, Seller may reasonably extend delivery or production schedules or, at its option, cancel the order in whole or part without liability other than to return any unearned deposit or prepayment.

10. WARRANTY

10.1 Seller warrants that the Products manufactured by Seller and sold hereunder shall be free from defects in material or workmanship under normal use and service for the warranty period. The final assembled Products shall be new although they may include certain used, reworked or refurbished parts and components (e.g., circuit boards) that comply with performance and reliability specifications and controls. Seller's obligation under this warranty is limited, at Seller's option, to the repair or replacement of the Product or any part thereof. Unless otherwise set forth in the Product Warranty attached hereto and incorporated herein by reference ("Product Warranty"), the warranty period shall commence upon the earlier of the date that the Products have been installed in accordance with Section 12.5 hereof (which date shall be confirmed in writing by Seller) or first patient use, and shall continue for twelve (12) consecutive months. Seller makes no warranty for any Products made by persons other than Seller or its affiliates, and Purchaser's sole warranty therefor, if any, is the original manufacturer's warranty, which Seller agrees to pass on to Purchaser, as applicable. The warranty provided by Seller under this Section 10 extends only to the original Purchaser, unless the Purchaser obtains the Seller's prior written consent with respect to any sale or other transfer of the Products during the term of the warranty.

10.2 No warranty extended by Seller shall apply to any Products which have been damaged by fire, accident, misuse, abuse, negligence, improper application or alteration or by a force majeure occurrence as described in Section 9 hereof or by the Purchaser's failure to operate the Products in accordance with the manufacturer's instructions or to maintain the recommended operating environment and line conditions; which are defective due to unauthorized attempts to repair, relocate, maintain, service; add to or modify the Products by the Purchaser or any third party or due to the attachment and/or use of non-Seller supplied parts, equipment or software without Seller's prior written approval; which failed due to causes from within non-Seller supplied equipment, parts or software including, but not limited to, problems with the Purchaser's network; or which have been damaged from the use of operating supplies or consumable parts not approved by Seller. In addition, there is no warranty coverage for any transducer or probe failure due to events such as cracking from high impact drops, cable rupture from rolling equipment over the cable, delamination from cleaning with inappropriate solutions, or TEE bite marks. Seller may effectuate any repairs at Purchaser's facility, and Purchaser shall furnish Seller safe and sufficient access for such repair. Repair or replacement may be with parts or products that are new, used or refurbished. Repairs or replacements shall not interrupt, extend or prolong the term of the warranty. Purchaser shall, upon Seller's request, return the non-complying Product or part to Seller with all transportation charges prepaid, but shall not return any Product or part to Seller without Seller's prior written authorization. Purchaser shall pay Seller its normal charges for service and parts for any inspection, repair or replacement that falls outside of Seller's warranty. Seller's warranty does not apply to consumable materials, disposables, supplies, accessories and collateral equipment, except as specifically stated in writing or as otherwise set forth in the Product Warranty.

10.3 This warranty is made on condition that immediate written notice of any noncompliance be given to Seller and Seller's inspection reveals that Purchaser's claim is covered under the terms of the warranty (i.e., that the noncompliance is due to traceable defects in original materials and/or workmanship).

10.4 Purchaser shall provide Seller with both on-site and remote access to the Products. The remote access shall be provided through the Purchaser's network as is reasonably necessary for Seller to provide warranty services under this Agreement. Remote access will be established through a broadband internet-based connection to either a Purchaser owned or Seller provided secure end-point. The method of connection will be a Peer-to-Peer VPN IPsec tunnel (non-client based) with specific inbound and outbound port requirements.

10.5 Warranty service will be provided without charge during Seller's regular working hours (8:30-5:00), Monday through Friday, except Seller's recognized holidays. If Purchaser requires that service be performed outside these hours, such service can be made available at an additional charge, at Seller's then current rates. The obligations of Seller described in this Section are Seller's only obligations and Purchaser's sole and exclusive remedy for a breach of product warranty.

10.6 SELLER MAKES NO WARRANTY OTHER THAN THE ONE SET FORTH HEREIN AND IN THE PRODUCT WARRANTY. SUCH WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSES, AND SUCH CONSTITUTES THE SOLE AND EXCLUSIVE WARRANTY MADE WITH RESPECT TO THE PRODUCTS, SERVICE OR OTHER ITEM FURNISHED UNDER THIS AGREEMENT.

10.7 In the event of any inconsistencies between the terms of this Section 10 and the terms of the Product Warranty, the terms of the Product Warranty shall prevail.

11. LIMITATION OF LIABILITY

11.1 In no event shall Seller's liability hereunder exceed the actual loss or damage sustained by Purchaser, up to the purchase price of the Products. The foregoing limitation of liability shall not apply to claims for bodily injury or damages to real property or tangible personal property to the extent arising from Seller's negligence or a product defect.

11.2 SELLER SHALL NOT BE LIABLE FOR ANY LOSS OF USE, REVENUE OR ANTICIPATED PROFITS; COST OF SUBSTITUTE PRODUCTS OR SERVICES; LOSS OF STORED, TRANSMITTED OR RECORDED DATA; OR FOR ANY INDIRECT, INCIDENTAL, UNFORESEEN, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES WHETHER BASED ON CONTRACT, TORT, STRICT LIABILITY OR ANY OTHER THEORY OR FORM OF ACTION, EVEN IF SELLER HAS BEEN ADVISED OF THE POSSIBILITY THEREOF, ARISING OUT OF OR IN CONNECTION WITH THIS

AGREEMENT OR THE SALE OR USE OF THE PRODUCTS. THE FOREGOING IS A SEPARATE, ESSENTIAL TERM OF THIS AGREEMENT AND SHALL BE EFFECTIVE UPON THE FAILURE OF ANY REMEDY, EXCLUSIVE OR NOT.

12. INSTALLATION - ADDITIONAL CHARGES

12.1 General. Unless otherwise expressly stipulated in writing, the Products shall be installed by and at the expense of Seller except that Seller shall not provide rigging or site preparation services unless otherwise agreed to in writing by Seller for an additional charge. Seller will not install accessory items such as cabinets, illuminators, darkroom equipment or processors for X-Ray and CT equipment, unless otherwise agreed to in writing by Seller.

12.2 Installation by Seller. If Seller specifies it will install the Products, the following applies: subject to fulfillment of the obligations set forth in Section 12.3 below, Seller shall install the Products and connect them to the requisite safety switches and power lines to be installed by Purchaser. Except as otherwise specified below, if such installation and connection are performed by Seller's technical personnel, prices shown include the cost thereof, provided that the installation and connection can be performed within the Continental United States or Puerto Rico and during normal business hours. Any overtime charges or other special expenses shall be additional charges to the prices shown.

12.3 Purchaser's Obligations. Purchaser shall, at its expense, provide all proper and necessary labor and materials for plumbing service, carpentry work, conduit wiring, and other preparations required for such installation and connection. All such labor and materials shall be completed and available at the time of delivery of the Products by Seller. Additionally, Purchaser shall provide free access to the installation site and, if necessary, safe and secure space for storage of Products and equipment prior to installation by Seller. Purchaser shall be responsible, at its sole cost and expense, for obtaining all permits, licenses and approvals required by any federal, state or local authorities in connection with the installation and operation of the Products, including but not limited to any certificate of need and zoning variances. Purchaser shall provide a suitable environment for the Products and shall ensure that its premises are free of hazardous conditions and any concealed or dangerous conditions and that all site requirements are met. Seller shall delay its work until Purchaser has completed the removal of any hazardous materials or has taken any other precautions and completed any other work required by applicable regulations. Purchaser shall reimburse Seller for any increased costs and expenses incurred by Seller that are the result of or are caused by any such delay. In the event that Seller is requested to supervise the installation of the Products, it remains the Purchaser's responsibility to comply with local regulations. Seller is not an architect and all drawings furnished by Seller are not construction drawings. If local labor conditions, including a requirement to use union labor, require the use of non-Seller employees to participate in the installation of the Product or otherwise causes delays or any additional expenses, then any such additional costs shall be at Purchaser's expense.

12.4 Regulatory Reporting. In the event that any regulatory activity is performed by anyone other than Seller's authorized personnel, then Purchaser shall be responsible for fulfilling any and all reporting requirements.

12.5 Completion of Installation. Installation shall be complete upon the conclusion of final calibration and checkout under Seller's standard procedures to verify that the Products meet applicable written performance specifications. Notwithstanding the foregoing, first use of the Products by Purchaser, its agents or employees for any purpose after delivery shall constitute completion of installation.

13. PATENT, COPYRIGHT AND OTHER INFRINGEMENT CLAIMS

13.1 Infringement by Seller. Seller warrants that the Products manufactured by Seller and sold hereunder do not infringe any U.S. patent or copyright. If Purchaser receives a claim that any such Products, or parts thereof, infringe upon the rights of others under any U.S. patent or copyright, Purchaser shall notify Seller immediately in writing. Provided that Purchaser gives Seller information, assistance and exclusive authority to evaluate, defend and settle such claims, Seller shall at its own expense and option: indemnify and defend Purchaser against such claims; settle such claims; procure for Purchaser the right to use the Products; or remove or modify them to avoid infringement. If none of these alternatives is available on terms reasonable to Seller, then Purchaser shall return the Products to Seller and Seller shall refund to Purchaser the purchase price paid by Purchaser less reasonable depreciation for Purchaser's use of the Products. The foregoing states Seller's entire obligation and liability, and Purchaser's sole remedy, for claims of infringement.

13.2 Infringement by Purchaser. If some or all of the Products sold hereunder are made by Seller pursuant to drawings or specifications furnished by Purchaser, or if Purchaser modifies or combines, operates or uses the Products other than as specified by Seller or with any product, data, software, apparatus or program not provided or approved by Seller, then the indemnity obligation of Seller under Section 13.1 shall be null and void.

14. DESIGNS AND TRADE SECRETS; LICENSE; CONFIDENTIALITY

14.1 Any drawings, data, designs, software programs or other technical information supplied by Seller to Purchaser in connection with the sale of the Products shall remain Seller's property and shall at all times be held in confidence by Purchaser.

14.2 For all Products which utilize software for their operation, such "Applications Software" shall be licensed to Purchaser under the terms of Seller's Software License Schedule attached hereto.

14.3 Seller and Purchaser shall maintain the confidentiality of any information provided or disclosed to the other party relating to the business, customers and/or patients of the disclosing party, as well as this Agreement and its terms (including the pricing and other financial terms under which the Purchaser will be purchasing the Products). Each party shall use reasonable care to protect the confidentiality of the information disclosed, but no less than the degree of care it would use to protect its own confidential information, and shall only disclose the other party's confidential information to its employees and agents having a need to know this information. The obligations of confidentiality set forth herein shall not apply to any information in the public domain at the time of disclosure or that is required to be disclosed by court order or by law.

15. ASSIGNMENT

15.1 Neither party may assign any rights or obligations under this Agreement without the prior written consent of the other, which shall not be unreasonably withheld. Any attempt to do so shall be void, except that Seller may assign this Agreement without consent to any subsidiary or affiliated company, and may delegate to authorized subcontractors or service suppliers any work to be performed under this Agreement so long as Seller remains liable for the performance of its obligations under this Agreement. This Agreement shall inure to and be binding upon the parties and their respective successors, permitted assigns and legal representatives.

16. COSTS AND FEES

16.1 In the event that any dispute or difference is brought arising from or relating to this Agreement or the breach, termination or validity thereof, the prevailing party shall be entitled to recover from the other party all reasonable attorneys' fees incurred, together with such other expenses, costs and disbursements as may be allowed by law.

17. MODIFICATION

17.1 This Agreement may not be changed, modified or amended except in writing signed by duly authorized representatives of the parties.

18. GOVERNING LAW; WAIVER OF JURY TRIAL

18.1 This Agreement shall be governed by the laws of the state where the Product(s) will be installed, without regard to that state's choice of law principles.

18.2 EACH OF THE PARTIES EXPRESSLY WAIVES ALL RIGHTS TO A JURY TRIAL IN CONNECTION WITH ANY DISPUTE UNDER THIS AGREEMENT.

19. COST REPORTING

19.1 Purchaser agrees that it must fully and accurately report prices paid under this Agreement, net of all discounts, as required by applicable law and contract, including without limitation 42 CFR §1001.952(h),in all applicable Medicare, Medicaid and state agency cost reports. Purchaser shall retain a copy of this Agreement and all other communications regarding this Agreement, together with the invoices for purchase and permit agents of the U.S. Department of Health and Human Services or any state agency access to such records upon request.

20. INTEGRATION

20.1 These terms and conditions, including any attachments or other documents incorporated by reference herein, constitute the entire, complete and exclusive statement of agreement with respect to the subject matter hereof, and supersede any and all prior agreements, understandings and communications between the parties with respect to the Products. Purchaser's additional or different terms and conditions stated in a purchase order, bid documents or any other document issued by Purchaser are specifically rejected and shall not apply to the transactions contemplated under this Agreement.

21. SEVERABILITY; HEADINGS
21.1 No provision of this Agreement which may be deemed unenforceable will in any way invalidate any other portion or provision of this Agreement. Section headings are for convenience only and have no substantive effect.

22. WAIVER
22.1 No failure and no delay in exercising, on the part of any party, any right under this Agreement will operate as a waiver thereof, nor will any single or partial exercise of any right preclude the further exercise of any other right.

23. NOTICES
23.1 Any notice or other communication under this Agreement shall be deemed properly given if in writing and delivered in person or mailed, properly addressed and stamped with the required postage, to the intended recipient at its address specified on the face hereof.

24. RIGHTS CUMULATIVE
24.1 The rights and remedies afforded to Seller under this Agreement are in addition to, and do not in any way limit, any other rights or remedies afforded to Seller by any other agreement, by law or otherwise.

25. END USER CERTIFICATION
25.1 Purchaser represents, warrants and covenants that it is acquiring the Products for its own end use and not for reselling, leasing or transferring to a third party (except for lease-back financings).

26. ACCESS TO BOOKS AND RECORDS
26.1 To the extent required by Section 1861(v)(1)(i) of the Social Security Act and the regulations promulgated thereunder, until the expiration of four (4) years after the furnishing of any Product or service pursuant to this Agreement, Seller shall make available, upon written request by the Secretary of Health and Human Services (the "Secretary"), or upon request by the Comptroller General (the "Comptroller"), or any of their duly authorized representatives, copies of this Agreement and any books, documents, records or other data of Seller that are necessary to certify the nature and extent of any costs incurred by Purchaser for such Products and services. If Seller carries out any of its duties under this Agreement through a subcontract with a related organization involving a value or cost of ten thousand dollars ($10,000) or more over a twelve (12) month period, Seller will cause such subcontract to contain a clause to the effect that, until the expiration of four (4) years after the furnishing of any Product or service pursuant to said contract, the related organization will make available upon the written request of the Secretary or the Comptroller, or any of their duly authorized representatives, copies of records of said related organization that are necessary to certify the nature and extent of cost incurred by Purchaser for such Product or service.

27. DISPOSITION OF PRODUCTS
27.1 Purchaser expressly agrees that should Purchaser sell, transfer or otherwise dispose of the Products, Purchaser shall notify Seller in writing and give Seller the opportunity to purchase such Products. With Purchaser's notice, Purchaser shall provide Seller with a copy of the third party's binding offer to purchase the Products and Seller shall have seven (7) days to notify the Purchaser of an offer to purchase the Products.

05/15 Rev.

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Software License Schedule to the Siemens Medical Solutions USA, Inc. General Terms and Conditions

1. DEFINITIONS: The following definitions apply to this Schedule:
"Agreement" shall mean the attached (i) Quotation for Products and/or Services including the Terms and Conditions of Sale and applicable schedules; and/or (ii) Software License Agreement describing the software licensed herein and the specific system for which the license is issued.
"Licensor" shall mean Siemens Medical Solutions USA, Inc.
"Licensee" shall mean the end-user to whom Licensor provides Software or Documentation for its internal use under the Agreement.
"Software" shall mean the software described in the attached Agreement, including the following as contained therein: (i) software programs consisting of a series of statements or instructions to be used directly or indirectly in a programmable controller or computer to bring about a certain result and (ii) databases consisting of systemized collections of data to be used or referenced directly or indirectly by a programmed controller or computer. Notwithstanding the foregoing, "Software" does not include "firmware" as such term is conventionally understood. Diagnostic/Maintenance Software also is not included within the scope of the Software licensed under this Schedule, and is available only as a special option under a separate Diagnostic Materials License Agreement and may be subject to a separate licensing fee.
"Documentation" shall mean the documents and other supporting materials which are intended to support the use of an associated product, including (but not limited to) instructions, descriptions, flow charts, logic diagrams and listings of the Software, in text or graphic form, on machine readable or printed media.
"Designated Unit" shall mean a single control unit or computer identified on the first page of the Agreement, on which Software licensed hereunder may be used by Licensee.
2. SCOPE: The following terms and conditions shall apply to all Software and Documentation provided by Licensor to Licensee under the Agreement (whether included with other products listed in the Agreement or listed separately in the Agreement), together with any updates or revisions thereto which Licensor may provide to Licensee, and all copies thereof, except any Software and/or Documentation licensed directly by Licensor's supplier under a separate end-user license agreement accompanying the Software or the Documentation, in which case Licensee agrees to be bound by that license agreement as a condition to using the Software and/or Documentation. Except as expressly provided herein, and provided that in no event shall the warranties or other obligations of Licensor with respect to such Software or Documentation exceed those set forth in this Schedule, this Schedule shall be subject to the liability limitations and exclusions and other terms and conditions set forth in the Agreement. **ANY USE OF THE SOFTWARE, INCLUDING BUT NOT LIMITED TO USE ON THE DESIGNATED UNIT, WILL CONSTITUTE LICENSEE'S AGREEMENT TO THIS SOFTWARE LICENSE SCHEDULE (OR RATIFICATION OF ANY PREVIOUS CONSENT).**
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(c) The Software may contain support for programs written in Java. Java technology is not fault tolerant and is not designed, manufactured, or intended for use or resale as online control equipment in hazardous environments requiring fail-safe performance, such as in the operation of nuclear facilities, aircraft navigation or communication systems, air traffic control, direct life support machines, or weapons systems, in which the failure of Java technology could lead directly to death, personal injury, or severe physical or environmental damage. Sun Microsystems, Inc. has contractually obligated Licensor's supplier to make this disclaimer.

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TRADE-IN EQUIPMENT REQUIREMENTS

THE FOLLOWING APPLIES ONLY TO THE EXTENT THAT THE QUOTATION INCLUDES AN EQUIPMENT TRADE-IN. THESE REQUIREMENTS ARE IN ADDITION TO ANY OTHER REFERENCED TERMS AND CONDITIONS ON THE QUOTATION AND SHALL REMAIN IN EFFECT REGARDLESS OF ANY CONTRARY LANGUAGE IN THE QUOTATION.

This Quotation includes the trade-in equipment described herein and referenced by either the Project Number identified in the Quotation hereof (non-ultrasound) or the Trade Allowance Part Number (Ultrasound) as further described in the associated Trade Sheet which is incorporated herein by reference. Purchaser certifies that the description of the trade-in equipment as set forth on the Trade Sheet is a true and accurate representation of the equipment, and that the equipment is in good working condition unless otherwise noted on the Trade Sheet.

The trade-in equipment must be made available for removal no later than turnover of the new equipment. Purchaser must vacate the room of all items not listed on the Trade Sheet, or otherwise clearly identify all items listed on the Trade Sheet, prior to the start of the de-installation. If this is not done, Seller will have no liability for items which are subsequently removed or scrapped. If the de-installation or return of the trade-in equipment is delayed by Purchaser for reasons other than a force majeure event, or if upon inspection by Seller it is determined that the equipment does not meet the manufacturer's operating specifications, or if any items listed as included on the Trade Sheet are not made available at the time of de-installation, then trade-in value will be re-evaluated and any loss in value or additional costs incurred by Seller shall be deducted from the established trade-in value and the pricing set forth on this Quotation will be adjusted by change order. In the event that access to the non-ultrasound trade-in equipment is denied past 14 days from turnover, or access to ultrasound trade-in equipment is denied past 30 days from turnover, then Purchaser shall pay to Seller a rental fee in the amount 3.5% of the total trade-in value plus any additional value provided by an Elevate/Promotional program included in this quotation (no less than $1000) for each month, or part thereof, that access is denied. In addition, if the purchase and installation of the new equipment covered by this Quotation is not completed, then Seller shall invoice Purchaser for all costs and expenses incurred by Seller in connection with the de-installation and removal of the trade-in equipment, including but not limited to labor, materials, rigging out, and transportation, which costs shall be paid by Purchaser within thirty (30) days of the invoice date.

Purchaser further acknowledges and agrees that (i) the trade-in equipment will be free and clear of all liens and encumbrances including, but not limited to, unpaid leases and loans, and that upon request, it will execute a bill of sale or other documents reasonably satisfactory to Siemens to transfer title and ownership of the equipment to Seller, (ii) it is Purchaser's sole responsibility to delete all protected health information and any other confidential information from the equipment prior to de-installation, without damaging or cannibalizing the equipment or otherwise affecting the operation of the equipment in accordance with its specifications, (iii) the equipment, including all updates, upgrades, modifications, enhancements, revisions, software, S/W disks and manuals, shall be returned to Siemens in good operating condition, reasonable wear and tear excepted, and (iv) to the extent not prohibited by applicable law, Purchaser shall indemnify and hold Seller harmless from and against any and all claims, demands, causes of action, damages, liability, costs and expenses (including reasonable attorney's fees) resulting or arising from Purchaser's failure to comply with item (i) above.

FOR MR SYSTEMS: cryogen levels must be least 65% upon time of de-installation. FOR MOBILE SYSTEMS: system must be road worthy and a state issued title transferring ownership to Seller (or Designee) must be received prior to the removal of the mobile system. FOR MODALITY TRADE SYSTEMS (non-ultrasound): The trade-in equipment must be available for inspection within two weeks of the scheduled de-installation date. In addition, Purchaser must provide a clear path for the removal of the trade-in equipment. Any additional costs due to the need to use a larger rig (other than a standard 80 ton rig), as well as any construction activities, street closings, permits, etc., required to de-install/remove the equipment are out-of-scope costs and will be the responsibility of Purchaser.

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MR Warranty Information

Product (New Systems and "ECO" Refurbished Systems Only)	Period of Warranty[1]	Coverage	
MR System (not including consumables)	12 months	Full Warranty (parts & labor)	
Post-Warranty (after expiration of system warranty) – Replacement parts only!			
Magnet	12 months	Parts only	
Spare Parts	6 months	Parts only	
Consumables	Not Covered		

Note: Optional extended warranty coverage can be obtained by purchase of a service agreement.

[1] **Period of warranty commences from the date of first use or completion of installation, whichever occurs first. In the event the completion of installation is delayed for reasons beyond Siemens' control, the stated warranty period shall commence 60 days after delivery of equipment.**

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Detailed Technical Specifications

MAGNETOM Aera - USA

Part No. / Product	Description
14416900 **MAGNETOM Aera - System**	MAGNETOM Aera - the first 1.5T Tim+Dot system - integrates the next generation Tim (Total imaging matrix) - Tim 4G and the Siemens unique Dot (Day optimizing throughput) engines enabling workflow efficiency combined with higher diagnostic confidence due to consistent results. The system includes: **Tim 4G+Dot** Tim 4G provides increased patient comfort and optimized workflow efficiency. Only one patient setup, no repositioning, no changing of coils. Ultra-light-weighted coils with high density of coil elements for maximized patient comfort and increased SNR. Feet-first positioning for almost all examinations possible reduces claustrophobia. Tim 4G with its 4G flexibility, 4G accuracy and 4G speed brings image quality and acquisition speed to a new level. Dot offers a customizable framework for patient personalization, user guidance and exam automation. Optimized scan strategies are provided and can be selected based on patient condition, which allow for high quality exams even when conditions change. Integrated decision points allow the user to easily add or remove one or a group of protocols with one click. Step by step image and text guidance guides novice users even through the most complicated exams. Exam automation allows optimal timing for breathing, scanning, planning or contrast arrival. Dot can be easily customized to follow the individual standards of care. Dot is personalized, guided and automated and designed to improve workflow efficiency and image consistency. MAGNETOM Aera with its 70 cm Open Bore design and a system length of only 145 cm gives a patient friendly appearance that can significantly help patients with anxiety or claustrophobia. **Magnet:** - Ultra-short 137 cm long (145 cm with covers), whole-body superconductive 1.5T magnet with active shielding (AS) technology with counter coils - External Interference Shielding (E.I.S.) - Excellent homogeneity enabled by TrueForm magnet design which allows for a cylindrically optimized homogeneity volume resulting in higher image quality (50 × 50 × 45 cm³ DEV, typ. 3.1 ppm based on the 24-plane plot method) - The magnet has a helium capacity of approximately 1,280 liters and a typical Helium boil-off rate of 0 l/yr during typical, undisturbed clinical operation depending on the sequences used and examination time, and provided the system is serviced in regular intervals. - It has an integrated magnet cooling system. **Gradient system :** - Actively shielded water-cooled world-class gradient system - True Form Gradient Design - All axes force compensated **DirectRF - RF Transmit/Receive System:** - Fully integrated Transmit and Receive path in the magnet housing including extremely compact water-cooled solid state amplifier with 26.1 kW peak power - High dynamic range - Immediate feedback loop for real-time sequence adaptation - Integrated no tune transmit/receive Body Coil - The revolutionary Tim 4G technology allows connecting up to 204 coil elements simultaneously enabling higher SNR and iPAT in all directions. No repositioning of patients is needed even for large Field of View

Part No. / Product	Description
(Continued) **14416900** **MAGNETOM Aera - System**	examinations. - Dual-Density Signal Transfer enables ultra-high density coil design by integrating key RF components into the local coil. **Tim 4G Coils:** The new Tim 4G coil technology with Dual-Density Signal Transfer, DirectConnect and SlideConnect technology combines key imaging benefits: Excellent image quality, high patient comfort, and unmatched flexibility. The Tim 4G coils are designed for highest image quality combined with easy handling. The high coil element density increases SNR and reduces examination times. DirectConnect and SlideConnect™ technology reduce patient set up time significantly. The coils are designed with the patient in mind. Light weighted coils and open design ensure highest patient comfort which results in better patient cooperation and image quality. No coil changing with multi-exam studies saves patient setup- and table time. AutoCoilSelect enables dynamic, automatic, or interactive selection of the coil elements within the Field of View and speeding the exam preparation at the host. All coils are time-saving "no-tune" coils. A comprehensive set of pads for comfortable and stable patient positioning together with safety straps are included. - Head/Neck 20 The 20-channel coil with its 20 integrated pre-amplifiers ensures excellent signal-to-noise ratio. The unique DirectConnect technology allows users connecting the 20 coil elements of the Head/Neck20 without cables. The patient friendly open design allows for maximum patient comfort which is supported in addition by a look-out mirror for claustrophobic patients. The high channel coil is iPAT compatible in all directions. The open and light design of the upper coil part increases patient comfort and is removable for easy patient handling. The lower coil part may remain on the table for most of the examinations can be used without the upper part .The Head/Neck 20 and Spine 32 are smoothly integrated into the patient table, thus enabling high flexibility in imaging and fewer coil changes and easy handling when switching patients. The Head /Neck 20 coil is equipped with two removable cushioned head stabilizers for stable and comfortable patient positioning. The Head/ Neck 20 can be used for applications like head examinations, neck examinations, MR Angiography, combined head/neck examinations or for imaging of the TMJ (temporomandibular joints). Typically combined with the Spine 32 and Body 18 or Peripheral Angio 36 but also other combinations eg with flexible coils like the Flex Large 4 are possible. - Body 18 The 18-channel coil with its 18 integrated pre-amplifiers ensures maximum signal-to-noise ratio. The 18 coil elements of the Body 18 with only one SlideConnect Plug allows for fast and easy patient preparation resulting in less table time. Fast acquisition times enabled by iPAT in all directions. The light-weighted coil ensures highest patient comfort. Body 18 operates in an integrated fashion with the Spine 32 as an 30 channel body coil Body 18 can be combined with further Body 18 coils for larger coverage and positioned in different orientations (0°, 90°, 180°, 270°) for patient specific adaptations The Body 18 is typically used in combination with the Spine 32 for examinations of the thorax, abdomen, pelvis or hip and operates as a 30 channel body coil (3 rings 10 elements).The Body 18 can also be used for cardiac or vascular applications. Through its perfect combinability with the Spine 32, further Body 18 (optional), the Peripheral Angio 36 (optional), but also the Head/Neck 20 and all flexible coils (e.g. Flex Large 4, Flex Small 4) it contributes for a broad range of indications up to whole-body imaging. - Spine 32 The 32-channel coil with its 32 integrated pre-amplifiers ensures maximum signal-to-noise ratio. The unique DirectConnect technology allows connecting the 32 coil elements of the Spine 32 without the need to plug in any cable. The patient friendly ergonomic design allows for maximum patient comfort. The high element coil is iPAT compatible in all directions. Smoothly integrated into the patient table the Spine 32 may remain on the patient table for nearly all exams.

Part No. / Product	Description
(Continued) **14416900** **MAGNETOM Aera - System**	The Spine 32 is typically combined with Body 18, Head/Neck 20, Peripheral Angio 36 (optional) or Flex Large 4, Flex Small 4. - Flex Large 4/ Flex Small 4 Light-weighted, very flexible, iPAT compatible, 4-element no-tune receiver coils which are made of soft and smooth material. The coils can be wrapped around or used flat. Both coils can be connected via Flex Coil interface. One Flex Coil interface is already delivered as standard. The coils can be used for different examinations ranging from examinations of the extremities to abdominal examinations. **Tim Table** - The maximum scan range of the Tim Table is 140 cm. A scan range of 205 cm can be achieved with the Tim Whole Body Suite (optional) - The maximum patient weight of 250 kg (550 lbs) is valid for horizontal and vertical movements, which ensures maximized patient comfort for obese patients. - The patient table can be lowered to a minimum height of 52 cm from the floor, for easier patient positioning and better accessibility for geriatric, pediatric or immobile patients. An infusion stand is integrated to ensure fast patient set up also for critical patients. - Multiple Tim4G coils can be connected at once for efficient and patient friendly examinations. - The Tim Table can be moved with two clicks into the isocenter - one click to the upmost position and one click into the isocenter. **Dot (Day Optimizing Throughput) engine** Dot multiplies the power of Tim resulting in greater image consistency and diagnostic confidence **Dot Control Centers and Dot Display** - The ergonomically designed Dot Control Centers are integrated left and right into the front covers for controlling table movement and interaction with the Dot Display. The Dot Control Centers are well illuminated for easy visual recognition. - Automated table move up to upmost position, to center position or Home position facilitate smooth patient preparation and will reduce table time - Variable (6 levels) ventilation and lighting inside the magnet bore or volume adjustments are possible for increased patient comfort - The Dot Display provides on board guidance for patient set up where it's needed - directly at the scanner. Information such as patient name or exam type or required patient position, guidance for ECG set up and immediate visualization of physiological curves will be provided for convenient operation. - Almost all table control functions, including ventilation and illumination of the magnet bore, can be also controlled from the operator console for convenient operation. **Dot Technology** Dot gives uniquely tailored, optimized scans configurable to patient condition or clinical question. Dot provides patient personalization, user guidance and exam automation and is of course configurable by the user to adapt to the different clinical needs and standards of care. **Brain Dot Engine** The Brain Dot Engine provides guided and automated workflows customizable to the site specific standards of care for general brain examinations. The Brain Dot Engine supports the user in achieving reproducible image quality with increased ease of use and time efficient exams. The brain workflow can be personalized to the individual patient condition and clinical need. Several predefined strategies are included, which can be easily selected with one click. They can be changed at any time during the brain workflow. Protocols tailored for use of contrast media are integrated. - Standard: Standard examination with 2D protocols - Resolution focus: Examination with 3D protocols (with e.g. SPACE) for detailed views

Part No. / Product	Description

(Continued)
14416900
MAGNETOM Aera - System
	- Speed focus: Examination with fast 2D protocols (with e.g. HASTE) for further speeding up the exam
	- Motion insensitive: Examination with *syngo* BLADE protocols
	- to minimize and correct for the effects of motion automatically
	
	Step-by-step user guidance is seamlessly integrated. Example images and guidance text are displayed for each individual step of the scanning workflow. Both - images and text - are easily configurable by the user.
	
	Easy positioning of the patient with AutoPosition. The patient is automatically placed at the isocenter without any laser marking required.
	
	AutoAlign Head provides automated, positioning and alignment of slice groups to the anatomy, relying on multiple anatomical landmarks. Besides basic brain positioning, AutoAlign Head computes reference position for several other brain structures such as the inner ear, the orbits and the optic nerve.
	
	Automatic real-time calculation of trace-weighted images and ADC maps with Inline DiffusionTechnology.
	
	Easy rerun or repeat with functionality allows for reduced table time. Alternatively an exam can be repeated with a changed strategy.
	
	The Brain Dot Engine as all Dot engines can be modified by the user to their individual standard of care.
	
	Tim Application Suite
	The Tim Application Suite offers a complete range of clinically optimized sequences, protocols and workflow functionalities for all body regions. Excellent head-to-toe imaging can be accomplished with the sequences and features included in this application suite. To enable this comprehensive application range, ten dedicated application packages have been included.
	
	- *syngo* TimCT FastView
	- Neuro Suite
	- Angio Suite
	- Cardiac Suite
	- Body Suite
	- Onco Suite
	- Breast Suite
	- Ortho Suite
	- Pediatric Suite
	- Scientific Suite
	
	***syngo* TimCT FastView**
	syngo TimCT FastView is a "one go" localizer for the whole body or large body regions such as the whole spine or the whole abdomen. It acquires the complete extended Field of View in one volume with isotropic resolution. Transversal, coronal and sagittal reformats of the volume are calculated inline and displayed for planning subsequent exams. Moreover, while planning is underway, adjustments are acquired automatically for further time savings in subsequent measurements.
	syngo TimCT FastView runs without laser light positioning to further streamline the workflow for several indications.
	
	Neuro Suite
	Comprehensive head and spine examinations can be performed with dedicated programs. High resolution protocols and fast protocols for uncooperative patients are provided. The Neuro Suite also includes protocols for diffusion imaging, perfusion imaging, and fMRI. It includes for example:
	- EPI sequences and protocols for diffusion, perfusion and fMRI for advanced neurological applications. Diffusion weighted imaging is possible with up to 16 b-values in the orthogonal directions. Dynamic Analysis software (included in standard configuration) enables calculation of:
	  - ADC maps
	  - t-test maps from the EPI images for fMRI
	  - Time-to-Peak maps for perfusion analysis.
	- Whole spine protocols acquire in multiple steps via software controlled table movement in a single click.

Part No. / Product	Description
(Continued) **14416900 MAGNETOM Aera - System**	- 3D isotropic resolution volume imaging using T1 3D MPRAGE / 3D FLASH, SPACE DarkFluid, T2 SPACE and 3D TSE - T2-weighted high resolution 3D Restore protocols optimized for inner ear examinations - Whole-spine protocols in multiple steps with software controlled table movement - 2D and 3D MEDIC protocols for T2-weighted imaging, particularly for C-spine examinations in axial orientation where reproducibility is difficult due to CSF pulsations and blood flow artifacts - 3D Myelograms with 3D HASTE and 3D True-FISP for anatomical details - Dynamic sacro-iliac joint imaging after contrast administration using a fast T1-weighted FLASH 2D sequence - Spine diffusion protocols to differentiate osteoporosis versus tumor infiltration and post-radiotherapy changes versus residual tumor with PSIF sequence - Precision filter for high spatial accuracy e.g. for neuro intra-operative imaging and stereotactic planning - 3D CISS (Constructive Interference in Steady State) for excellent visualization of fine structures such as cranial nerves. High resolution imaging of inner ear and spine - AutoAlign Head LS providing a fast, easy, standardized, and reproducible patient scanning supporting reading by delivering a higher and more standardized image quality **Angio Suite** Excellent MR Angiography can be performed to visualize arteries and veins with or without contrast agent. *Contrast-enhanced MRA* - 3D contrast-enhanced MRA protocols for e.g. single step, dynamic, peripheral, whole body MRA with the shortest TR and TE. The strong gradients make it possible to separate the arterial phase from the venous phase. - TestBolus workflow for optimized bolus timing and superb image quality. - CareBolus functionality for accurate determination of the bolus arrival time and the "Stop and Continue" of the 3D ce-MRA protocol after the 2D bolus control scan. - Dynamic ce-MRA for 3D imaging over time. *Non-contrast-MRA and venography* - 2D and 3D Time-of-Flight (ToF) protocols for MRA for the Circle of Willis, carotids, neck vessels, and breath-hold protocols for abdominal vessels - Triggered 2D ToF sequences for non-contrast MRA, particularly of the abdomen and the extremities - 2D/3D Phase-Contrast - MR venography with 2D/3D Time-of-Flight (ToF) and Phase-Contrast - TONE (Tilted Optimized Non-saturation Excitation) and MTC (Magnetization Transfer Contrast) techniques for improved Contrast-to-Noise Ratio (CNR) *Image processing tools* - MPR, MIP, MinIP, and 3D SSD (Multiplanar Reconstruction, Maximum Intensity Projection, Minimum Intensity Projection, Shaded Surface Display) - Inline MIP for immediate results - Inline subtraction of pre- and post-contrast measurements - Inline standard deviation maps of Phase-Contrast measurements for delineation of arteries and veins **Cardiac Suite** The cardiac suite covers comprehensive 2D routine cardiac applications, ranging from morphology and ventricular function to tissue characterization. Featuring *syngo* BEAT 2D in conjunction with iPAT and T-PAT techniques. *Cardiac views* - Fast acquisition of the basic cardiac orientations for further examination planning - Cardiac scouting provides users with a step-by-step procedure for the visualization and planning of typical cardiac views, e.g. based on TrueFISP or Dark Blood TurboFLASH: short axis, 4-chamber and 2-chamber views. *syngo BEAT* - Unique tool for fast and easy cardiovascular MR imaging - E.g. 1 click change from FLASH to TrueFISP for easy contrast optimization - 1-click to switch arrhythmia rejection on / off - 1-click change from Cartesian to radial sampling to increase effective image resolution (e.g. in pediatrics

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Part No. / Product	Description
(Continued) **14416900** **MAGNETOM Aera - System**	patients) and avoid folding artifacts in large patients *Visualization of structural cardiovascular pathologies with CMR – syngo BEAT* - Breath-hold and free breathing techniques for strong contrast between the blood and vascular structures. Dark Blood TSE and HASTE imaging are available for the structural evaluation of the cardiothoracic anatomy, including vessels or heart valves. Cine techniques (FLASH & TrueFISP) for high-resolution valve evaluation - Multiple contrasts such as T1- and T2-weighted imaging for use in diseases such as myocarditis (inflammation / hyperaemia), ARVD (fibrous-fatty degeneration) or acute myocardial infarction (edema) - Dark-blood TSE with motion compensation for high-quality vessel wall imaging in small or large vessels *Tools for rapid evaluation of left or right ventricular function* - Acquisition of a stack of short-axis slices (standard segmented FLASH, or advanced segmented TrueFISP) - Automatic adjustment of the acquisition window to the current heart rate - Use of the inline ECG for graphical ECG triggering setup - Retrospective gating with cine sequences (TrueFISP, FLASH) - Protocols for whole-heart coverage - iPAT integration for highest temporal and spatial resolution - Real-time imaging in case the patient is not able to hold his breath *Dynamic imaging and tissue characterization with syngo BEAT* - Protocols for high-contrast and high-resolution tissue characterization - Protocols for stress and rest imaging with TrueFISP or TurboFLASH contrast support the acquisition of multiple slices with high resolution and arbitrarily adjustable slice orientation for each slice - T-PAT with mSENSE and GRAPPA for advanced parallel imaging provides fast high-resolution dynamic imaging - Segmented IR TrueFISP / FLASH with TI scout for optimization of tissue contrast - Advanced tissue characterization with 2D phase-sensitive IR (PSIR) sequences TrueFISP and FLASH contrast. Magnitude and phase-sensitive images with one acquisition - Simple: no adjustment of inversion time (TI) necessary with PSIR technique - Ungated single-shot PSIR imaging for tissue characterization under difficult conditions: free-breathing technique that can be applied even in case of arrhythmia Physiological Measurement Unit (PMU) - Wireless Physio Control - Synchronizes the measurement with the physiological cycles (triggering to minimize motion artifacts caused by cardiac and respiratory movements) - Wireless Sensors - Wireless Vector ECG / respiration and pulse sensors for physiologically synchronized imaging, rechargeable battery-powered - for optimized patient handling - Physiological Signals Display - ECG (3 channels) - Pulse - Respiration - External Trigger Input Display ECG Triggering: - Acquisition of multiple slices, e.g. of the heart, at different phases of the cardiac cycle - Excellent image quality by synchronizing data acquisition with cardiac motion - Peripheral Pulse Triggering: Reduces flow artifacts caused by pulsatile blood flow - Excellent image quality by synchronizing data acquisition to the pulsatile blood flow - Respiratory Triggering: Excellent image quality by synchronizing data acquisition with the respiratory motion - External Triggering: Interface for trigger input from external sources (e.g. Patient Monitoring System) inside the examination room - Interface for trigger input from external sources (e.g. pulse generator, trigger sources for fMRI) outside the examination room - Optical trigger output for fMRI - Retrospective gating for ECG, peripheral pulse, and external trigger input

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Part No. / Product	Description
(Continued) **14416900** **MAGNETOM Aera - System**	**Breast Suite** MR imaging has proven a very high sensitivity for breast lesions and is the gold standard for the examination of silicone implants. Extremely high spatial and temporal resolution can be achieved in very short measuring times by using iPAT with GRAPPA. Excellent soft tissue differentiation, customized protocols (e.g. with fat saturation or water excitation or silicone excitation), as well as flexible multiplanar visualization allow for fast, simple and reproducible evaluation of MR breast examinations. This package includes: - Quantitative evaluation and fast analysis of the data with colorized Wash-in, Wash-out, Time-To-Peak, Positive-Enhancement-Integral, MIPtime and combination maps with Inline technology or for offline calculation - High-resolution 2D protocols for morphology evaluation - High-resolution 3D protocols covering both breasts simultaneously - Protocols to support interventions (fine needle and vacuum biopsies, wire localization) - Protocols for evaluating breasts with silicone implants - Automatic and manual frequency adjustment, taking into account the silicone signal - Detection of the silicone signal either to suppress the silicone signal, if the surrounding tissue is to be evaluated, or to suppress the tissue signal in order to detect an implant leakage - SPAIR - robust fat sat (robust fat suppression using an adiabatic frequency selective inversion pulse) - DIXON - 2-point Dixon with 3D VIBE, the following contrasts can be obtained: in-phase, opposed phase, fat and water image. - iPAT with GRAPPA for maximum resolution in short time - Inline subtraction and MIP display - Offline subtraction, MPR and MIP display - *syngo* REVEAL: diffusion imaging for breast exams - iPAT Extension allows bilateral 3D sagittal breast imaging with Fat Sat or Water excitation The Breast Suite also includes: ***syngo* VIEWS (Volume Imaging with Enhanced Water Signal)** - bilateral - both breasts are examined simultaneously - axial - the milk ducts are directly displayed - fat-saturated or water-excited - fat complicates clinical evaluation and is suppressed - near-isotropic 3D measurement - the same voxel size in all three directions for reconstruction in any slice direction - submillimeter voxel - highest resolution for precise evaluation **Body Suite** Body Suite covers your needs for clinical body applications. Ultrafast high resolution 2D and 3D protocols are provided for abdomen, pelvis, MR Colonography, MRCP, dynamic kidney, and MR Urography applications. Siemens unique 2D PACE technique makes body imaging easy allowing for multi-breath hold examinations as well as free breathing during the scans. Motion artifacts are greatly reduced with 2D PACE inline technology. This package includes: - Free breathing 2D PACE applications with 2D/3D HASTE (RESTORE) and 2D/3D TSE (RESTORE) - Optimized fast single shot HASTE protocols and high-resolution 3D RESTORE protocols based on SPACE and TSE for MRCP and MR Urography examinations ***ABDOMEN:*** *2D:* - T1w (FLASH) breath-hold scans +/- Fat Sat (SPAIR, Q-FatSat, in-/opp-phase) - T2w (HASTE, TSE/BLADE, EPI) breath-hold scans +/- Fat Sat (SPAIR, FatSat, STIR) - T1w (TFL) triggered scans (2D PACE free breathing) in-/opp-phase - T2w (HASTE, TSE/BLADE, EPI) triggered scans (2D PACE free breathing) +/- Fat Sat (SPAIR,FatSat, STIR) as well as HASTE- and TSE-multi-echo - Optimized fast single shot HASTE protocols and high-resolution 3D RESTORE protocols based on SPACE and TSE for MRCP and MR urography examinations

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Part No. / Product	Description
(Continued) **14416900** **MAGNETOM Aera - System**	*3D* - Dixon (VIBE 2pt-Dixon) breath-hold scans, following contrasts can be obtained: in-phase, opposed phase, fat and water image. - Dynamic (VIBE + Q-FatSat) protocols for best visualization of focal lesions with high spatial and temporal resolution - Colonography bright lumen with T2-weighted TrueFISP and dark lumen with T1-weighted VIBE - CAIPIRINHA enables VIBE sequence with improved iPAT2 algorithm to improved abdominal dynamic scans as well as SNR. Reduced patient stress can be achieved through reduced acquisition (and breathhold) times. ***PELVIS:*** - High-resolution T1w, T2w pelvic imaging (prostate, cervix) - Isotropic T2w SPACE 3D protocols for tumor search in the pelvis - Dynamic volume examinations with 3D VIBE - *syngo* REVEAL: diffusion imaging for liver and whole body exams **Onco Suite** MR imaging has an excellent advantage of soft tissue contrast, multi-planar capabilities and the possibility of selectively suppressing specific tissue e.g. fat or water. This helps visualize pathologies, particularly metastases. The Onco Suite features a collection of sequences as well as protocols and evaluation tools that guide through a detailed screening of clinical indications, such as in hepatic neoplasms. This package includes: - STIR TSE and HASTE, FLASH in-phase and opposed-phase protocols with a high sensitivity to metastases visualization - Dynamic imaging protocols for assessment of the kinetic behavior for lesion visualization and characterization - Quantitative evaluation and fast analysis of the data with colorized Wash-in, Wash-out, Time-To-Peak, Positive-Enhancement-Integral, MIPtime and combination maps with inline technology or for offline calculation - Display and analysis of the temporal behavior in selected regions of interest with the included MeanCurve postprocessing application. This includes the capability of using additional datasets as a guide for defining regions of interest even faster and easier than before. - *syngo* REVEAL: diffusion imaging for liver and whole body exams Dedicated prostate protocols for detection, localization, and staging of tumors and recurrences - *syngo* REVEAL (diffusion-weighted imaging) - Protocols with high temporal resolution allow time course evaluation based on pharmacokinetic modeling **OrthoSuite** Ortho Suite is a comprehensive collection of protocols for joint and spine imaging. MR imaging is especially suitable for avascular necrosis and internal derangements. The protocols included in this Suite can also be applied for imaging of tumors and infections. This package includes: - 2D TSE protocols for PD, T1 and T2-weighted contrast with high in-plane resolution and thin slices - 3D MEDIC, 3D TrueFISP protocols with water excitation for T2-weighted imaging with high in-plane resolution and thin slices - High resolution 3D VIBE protocol for MR arthrography (knee, shoulder and hip) - 3D MEDIC, 3D TrueFISP, 3D VIBE protocols with water excitation having high isotropic resolution, optimized for 3D post-processing - PD SPACE with fat saturation and T2 SPACE with high isotropic resolution optimized for 3D post-processing - Whole spine single-step or multi-step protocols - Excellent fat suppression in off-center positions, e.g. in the shoulder due to high magnet homogeneity - Dynamic TMJ and ilio-sacral joint protocol - Susceptibility-insensitive protocols for imaging in the presence of a prosthesis - Multi-Echo SE sequence with up to 32 echoes for the calculation of T2 time maps (calculation included in the Scientific Suite) - High resolution 3D DESS (Double Echo Steady State) T2 / T1-weighted imaging for excellent fluid-cartilage

Part No. / Product	Description
(Continued) **14416900** **MAGNETOM Aera - System**	differentiation *syngo WARP Susceptibility Artifact Reduction* - 2D TSE sequences with high bandwidth protocols tailored to reduce susceptibility artifacts. Available protocols include T1-weighted, T2-weighted, proton density and STIR contrast. **Pediatric Suite** The parameters for pediatric imaging vary significantly in comparison to the parameters for adults. The reasons are developing tissues, body size, faster heart rates and restricted compliance with breath-hold commands. Protocols can be adapted for imaging infants. **Scientific Suite** Scientific Suite supports the scientifically oriented user with an easy access to application-specific data for further processing and advanced image computation methods. - Support of USB memory sticks - Access to the file system by means of a secure and convenient browser - Anonymization of patient data - Easy generation of AVIs and screenshots for integration into presentations and training videos - Export function for tables, statistics and signal-time-courses in a communal format (MeanCurve, Spectroscopy, DTI evaluation) - Advanced image computation methods such as T2 and T1 time calculation, addition, subtraction, multiplication, division, and integration of images The sequences, features and techniques for acquisition and reconstruction included in the Tim Application Suite are described in detail below. **Sequences** Spin Echo family of sequences: - Spin Echo (SE) - Single, Double, and Multi Echo (up to 32 echoes); Inversion Recovery (IR) - 2D / 3D Turbo Spin Echo (TSE) - Restore technique for shorter TR times while maintaining excellent T2 contrast; TurboIR: Inversion Recovery for STIR, DarkFluid T1 and T2, TrueIR; Echo Sharing for dual-contrast TSE - 2D / 3D HASTE (Half-Fourier Acquisition with Single Shot Turbo Spin Echo) - Inversion Recovery for STIR and DarkFluid contrast - SPACE for 3D imaging with high isotropic resolution with T1, T2, PD, and DarkFluid Contrast Gradient Echo family of sequences: - 2D / 3D FLASH (spoiled GRE) - dual echo for in- / opposed phase imaging 3D VIBE (Volume Interpolated Breathhold Examination) - quick fat saturation; double echo for in-phase / opposed phase 3D imaging; DynaVIBE: Inline 3D elastic motion correction for multi phase data sets of the abdomen; Inline Breast Evaluation - 2D / 3D MEDIC (Multi Echo Data Image Combination) for high resolution T2 weighted orthopedic imaging and excellent contrast - 2D / 3D TurboFLASH - 3D MPRAGE; single shot T1 weighted imaging e.g. for abdominal imaging during free breathing - 3D GRE for fi eld mapping - 2D / 3D FISP (Fast Imaging with Steady State Precession) - 2D / 3D PSIF - PSIF Diffusion - Echo Planar Imaging (EPI) - diffusion-weighted; single shot SE and FID e.g. for BOLD imaging and Perfusion-weighted imaging; 2D / 3D Segmented EPI (SE and FID) - ce-MRA sequence with Inline subtraction and Inline MIP - 2D / 3D Time-of-Flight (ToF) Angiography - single slab and multi slab; triggered and segmented - 2D / 3D Phase Contrast Angiography - *syngo* BEAT Tool - TrueFISP segmented; 2D FLASH segmented; - Magnetization-prepared TrueFISP (IR, SR, FS); IR TI scout; Retrogating Standard Fat/Water Imaging

Part No. / Product	Description
(Continued) **14416900** **MAGNETOM Aera - System**	- Fat and Water Saturation. Additional frequency selective RF pulses used to suppress bright signal from fatty tissue. Two selectable modes: weak, strong - Quick FatSat - SPAIR: robust fat suppression for body imaging using a frequency selective inversion pulse - Fat / Water Excitation. Spectral selective RF pulses for exclusive fat / water excitation - Dixon technique for fat and water separation - available both based on VIBE (2 point Dixon) Standard Techniques - True Inversion Recovery to obtain strong T1-weighted contrast - Dark Blood inversion recovery technique that nulls fluid blood signal - Saturation Recovery for 2D TurboFLASH, gradient echo, and T1-weighted 3D TurboFLASH with short scan time (e.g. MPRAGE) - Freely adjustable receiver bandwidth, permitting studies with increased signal-to-noise ratio - Freely adjustable flip angle. Optimized RF pulses for image contrast enhancement and increased signal-to-noise ratio - MTC (Magnetization Transfer Contrast). Off-resonance RF pulses to suppress signal from certain tissues, thus enhancing the contrast. Used e.g. in MRA - Argus viewer for reviewing cine studies - Report Viewer for DICOM structured reports including report editing - Dynamic Analysis for addition, subtraction, division, standard deviation, calculations of ADC maps, T1 and T2 values, TTP, t-Test, etc. - Image Filter - 3D post-processing MPR, MIP, MinIP, SSD - Flexible film formats and paper print - Data storage of images and cine AVI files on CD / DVD with DICOM viewer as the viewing tool for hand out to the patients or referrals - Selectable centric elliptical phase reordering via the user interface - Inversion Recovery to nullify the signal of fat, fluid or any other tissue - Multiple Direction Diffusion Weighting (MDDW) - perform diffusion tensor imaging with multiple diffusion weightings and up to 12 directions for generating data sets. Standard techniques for Flow Artifact reductions - LOTA (LongTerm Data Averaging) technique to reduce motion and flow artifacts - Pre-saturation techniques using RF saturation pulses to suppress flow and motion artifacts - Tracking SAT bands maintain constant saturation of venous and/or arterial blood flow eg. for 2D/3D sequential MRA - TONE (Tilted Optimized Non-saturating Excitation - variable excitation flip angle to compensate inflow saturation effects in 3D MRA - selectable on desired flow direction and speed - Gradient Motion rephasing permitting effective reduction of flow artifacts Standard Motion Correction - *syngo* Blade - improves image quality by minimizing and correcting for the effects of motion during an MR sequence acquisition. e.g. head, spine, orthopedic imaging and the abdomen - 1D PACE (Prospective Acquisiton CorrEction) allows examination of patients with free breathing - 2D PACE (Precise Motion Correction) detects and corrects respiratory motion eg of the heart or liver MAGNETOM Aera runs *syngo* MR software. *syngo*® is the unique software platform for medical applications. Parallel working and one-click exams are efficiently supported and increase productivity. Parallel scanning and reconstruction are standard. The unique Phoenix technique is the easiest way to exchange protocol data. It supports intelligent extraction of sequence parameters from images acquired on a MAGNETOM Aera system. Inline technologies, scan@center or AutoVoiceCommands speed up the workflow further. The context-sensitive "Online Help" function and *syngo* Scan Assistant offer support and propose solutions to MR-specific questions and parameter conflicts.

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(Continued)
14416900
MAGNETOM Aera - System
	Studies can be easily networked and managed using the standard DICOM 3.0 protocol for efficient support of workflow. The following standard functions are supported: Send/Receive, Query/Retrieve, Basic Print for DICOM-compatible laser cameras (Camera is not included in the basic unit. Verify if existing camera is compatible or order separately.), DICOM Worklist, DICOM Storage Commitment (SC) DICOM Modality Perform Procedure Step (MPPS), DICOM Structured Report (SR), DICOM Study Split.
	
	Patient Communication
	- The intercom system includes an ergonomically designed patient communication unit for desktop positioning on the *syngo* Acquisition Workplace and pneumatic headphones for the patient.
	- It controls emergency table stop, volume control of speaker and headphones in the examination room, volume control of speaker in the control room, response to the patient's activation of the assistance-call button and provides a connection to an external audio system (external audio system is not included in the basic unit) for music playback.
	
	Computer system
	The high performance measurement and reconstruction system and the high performance host computer are ideally suited for even the most demanding applications. The PC-based computer system uses the intuitive *syngo* MR user interface. The computer system includes the following components:
	High-performance measurement and reconstruction system
	- Two Intel Quadcore Processor ≥ E5620
	- Clock rate of ≥ 2 × 2.4 GHz, or comparable
	- Main memory (RAM) of 48 GB
	- Hard disk for raw data ≥ 300 GB
	- Hard disk for system software ≥ 100 GB
	- Parallel Scanning and Reconstruction of up to 8 data sets
	- Reconstruction speed
	  - 12,195 recons per second (256 x 256 FFT, full FoV)
	  - 37,914 recons per second (256 x 256 FFT, 25 % recFoV)
	
	High-performance host computer
	- Intel Xeon processor ≥ E5-1620 QuadCore
	- Clock rate 3.6 GHz, or comparable
	- Main Memory (RAM) 16 GB
	- Three hard disks
	  - system SW ≥ 300 GB SAS
	  - data base ≥ 300 GB SAS
	  - images ≥ 300 GB SAS
	- DVD-R writer for CD-R (approx. 4000 images 256^2 DICOM Standard, ISO 9660) and DVD-R (approx. 25 000 images 256^2 DICOM Standard, ISO 9660) storage of DICOM data or other data like AVI files
	  - DVD-ROM drive
	  - Electronic mouse.
	- The combination of host computer and the measurement and reconstruction system offers a truly powerful imaging system designed for large image matrix sizes of up to 1024 x 1024. The unrestricted multitasking capability allows time-saving parallel scanning and reconstruction.
	- High-resolution 19" color LCD flatscreen monitor with 1280 x 1024 pixel display, integrated gamma correction for optimum display of radiographic grayscale images and automatic backlight control for longterm brightness stability.
	
	Installation:
	- The relatively lightweight design of the MAGNETOM Aera in most cases eliminates the need for structural building reinforcements and thus facilitates installation in upper floors.
	- The compact integrated design allows for short installation times and reduces the required space to less than 30 sqm (323 sq. ft.) for the entire installation. The minimum room height clearance is only 2.40 m (7' 10").
	- MAGNETOM Aera allows siting of the system without a dedicated computer room - no additional cooling or

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Part No. / Product	Description
(Continued) **14416900** **MAGNETOM Aera - System**	floor requirements. - MAGNETOM Aera combines state-of-the-art performance with peace of mind. High system availability is ensured by the expert, highly trained Siemens MR service engineers; - Your Siemens service contract (not included in the basic unit) offers a comprehensive range of benefits such as Uptime Remote Diagnostics for improved productivity
14416901 **Tim [204x48] XJ Gradients #Ae**	**Tim [204x48] performance level** Tim 4G offers DirectRF - a completely redesigned RF architecture. This new all digital-in/ digital-out design integrates all RF transmit and receive components at the magnet, eliminating analog cables for true signal purity. This compact and efficient design enables an dynamic feedback control for temporal stability and power linearity. The all-new innovative coil architecture packs more coil elements in a smaller space and allows for simultaneous connection of up to 204 coil elements. Combined with the 48 independent RF channels advanced iPAT capabilities and SNR are enabled. An additional benefit of multiple coil elements and receiver channels is improved performance in multi-directional, i.e. three dimensional, high-speed, high-resolution iPAT in the head-feet, anterior-posterior or left-right directions. **XJ gradients** Siemens XJ gradients provide actively shielded, water cooled world-class gradients. All axes are force-compensated. The XJ gradients have: - Maximum gradient amplitude of 33 mT/m, per axis, i.e. 57 mT/m vector summation gradient performance, - Maximum slew rate 125 T/m/s per axis, i.e. 216 T/m/s vector summation, - Minimal rise time 264 µs, from 0 to 33 mT/m amplitude - Maximum output voltage for each of the gradient axes 2000 V - Maximum output current for each of the gradient axes 625 A - Separate cooling channels that simultaneously cool primary and secondary coils allow the application of extremely gradient intensive techniques in a new class of performance. - 100% duty cycle for fast and demanding techniques such as ultra-short TE MRA in continuous operation, thin slice single breath-hold liver studies and EPI imaging techniques (all optional in appropriate clinical packages). - Variable Field-of-View selection from 0.5 cm to 50 cm (up to 45 cm in z direction) for optimal coverage and highest spatial resolution in diagnostic. The minimum slice thickness in 2D and 3D is 0.1 mm and 0.05 mm, respectively. - Acquisition of sagittal, transverse, coronal, single oblique and double oblique slices with highest resolution. - The extremely compact water-cooled gradient amplifier features a modular expandable design with excellent linearity and pulse reproducibility. It is digitally controlled and has very low switching losses due to ultrafast solid state technology.
14416906 **Tim Dockable Table #Ae**	The Tim Dockable Table with its light appealing design allows for a fast patient preparation and maximized patient comfort. It provides unobstructed foot space for attending staff and direct access to the patient. The patient table can be lowered to a minimum height of 56 cm (18.5") from the floor, for easier moving of immobile patients and better access for geriatric, pediatric patients or immobile patients. The Tim Dockable Table can be moved with two clicks into the isocenter - one click to the upmost position and one click into the isocenter. The tabletop travels beyond the rear end of the system, enabling additional patient access. Multiple Tim4G coils can be connected at once for efficient patient set up and patient friendly examinations. The seamless integration of multiple Tim 4G coils is possible via 4 SlideConnect and 4 DirectConnect connector slots, which are embedded in the table. This allows for comprehensive examinations without the need of repositioning. The Tim Dockable Table is easily adjustable for height even in the undocked state. A minimum height of 61 cm allows for easy wheelchair access or easy patient movement to the hospital bed. The integrated infusion stand and arm rests allow for fast patient set up anywhere and also for critical patients
08464872 PC Keyboard US english #Tim	The keys of the numerical key panel are assigned to syngo-specific functions and labeled with the corresponding syngo icons. The keyboard supports the country specific special characters.

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Part No. / Product	Description
14416914 **Pure White Design #T+D**	The unique color and material selection enhances the visual appeal of the new system design, thereby creating an enticing, patient-friendly impression. The Dot Control Centers and the unique Dot Display are neatly integrated into this main face plate. The aesthetically pleasing and ergonimcally designed control elements of the Dot Control Centers are well illuminated for easy visual recognition. In particular, the table cover and the asymmetric left deco area cover have also been designed to promote a modern visual appearance. This combination of ingenuity and practical design as presented with "Pure White" design with its brilliant white and the silver trim simply makes the MAGNETOM an overall visually appealing system and creates a patient-friendly environment.
14446650 **SW syngo MR E11C**	*syngo* MR E11C provides several workflow and performance enhancements, and an extended IT security configuration. There are new options (with separate licenses) available with the *syngo* MR E11C software: - Simultaneous Multi-Slice EPI (for brain diffusion and BOLD imaging) - Advanced Diffusion (RESOLVE and QuietX Diffusion for brain) - *syngo* System Security Enhanced GOBrain comes standard for MAGNETOM Aera and Skyra with Tim [204x48] or higher configurations with E11C. GOBrain is a set of optimized protocols for diagnostic neuroimaging developed by the board-certified neuroradiologists at Massachusetts General Hospital, USA. These protocols aim to achieve a diagnostic brain examination and are optimized for short acquisition times. The following contrast and orientations are provided with this protocol: - sagittal T1-weighted GRE - axial T2-weighted TSE - axial T2 TSE FLAIR - axial Diffusion-weighted single-shot EPI - axial T2*-weighted EPI-GRE *syngo* System Security Basic comes standard for all system configurations with syngo MR E11C. *syngo* System Security Basic features provide security settings to protect the scanner against known security threats. It uses an embedded Windows® version that adjusts user rights to the required minimum and restricts network communication to the clinically relevant. It also protects the protocol trees against unauthorized modifications.
14441748 **Quiet Suite #T+D**	Effective noise reduction is achieved through Quiet Suite by targeting the main source of MRI noise - rapid switching in the gradient coils. Quiet Suite consists of QuietX, an intelligent algorithm which effectively reduces noise through summation of gradients and reduction of slew rates while keeping timing parameters within the same range. QuietX has been enabled for TSE, SE and GRE sequences for T1, T2 and DarkFluid contrasts. Within the TSE-sequence, the parameter "Echo-spacing" allows the user to further lower the gradient slew-rates. QuietX has also been enabled for susceptibility and diffusion-weighted imaging and these sequences are available with the SWI and Advanced Diffusion licenses, respectively. The automated algorithm runs in parallel to normal protocol handling. All features and contrasts of the TSE, SE, and GRE sequences remain available. In addition, Quiet Suite contains PETRA, a 3D T1 UTE sequence. The PETRA sequence allows for even lower gradient switching. With its unique gradient trajectories, no acoustic noise associated with gradient switching is generated during a PETRA scan. Residual noise may arise due to radio frequency switching. With Quiet Suite, optimized quiet protocols for imaging the brain and large joints are also provided.
14441866 **DotGO Routine Package #T+D**	**Spine Dot Engine:** The Spine Dot Engine provides optimized cervical, thoracic and lumbar spine imaging for patients of all conditions. Spine Dot Engine provides the functionality to simplify your spine workflow by providing tools to reduce examination times, achieve optimal image quality, and assist you during reading. - User guidance step-by-step - AutoPosition - AutoAlign Spine with intervertebral disc detection

Part No. / Product	Description
(Continued) **14441866** **DotGO Routine Package #T+D**	- AutoCoverage - AutoSatPosition - Initial and interactive snapping - AutoLabeling of vertebrae - Automatic curved multiplanar reconstructions of 3D datasets The Spine Dot Engine includes: - Tim Planning Suite - Inline Composing - *syngo* WARP Susceptibility Artifact Reduction *syngo* WARP integrates different techniques tailored to reduce susceptibility artifacts caused by orthopedic MR-Conditional metal* implants. 2D TSE sequence combining optimized high-bandwidth protocols and View Angle Tilting (VAT) technique, tailored to reduce susceptibility artifacts caused by orthopedic MR-Conditional metal* implants. This helps in evaluation of soft tissue in proximity of the implant. Available protocols include T1- weighted, T2-weighted, proton density and STIR contrast. **LargeJoint Dot Engine:** LargeJoint Dot Engine optimizes image quality of knee, hip and shoulder scans by proposing the most appropriate protocols according to the examination strategy chosen for the specific patient. It ensures reproducible image quality and streamlines large joint examinations to the greatest extent. *Dot Exam Strategies* The workflow can be personalized to the individual patient condition and clinical need. The LargeJoint Dot Engine comes with the following predefined strategies, which the user can select according to patient conditions or change at any time during the workflow, when conditions change: - Image quality: Achieve highest image quality in a reasonable scan time with 2D and 3D protocols. - Speed focus: Examine patients in the shortest possible time with protocols being accelerated to the maximal extent. - Motion artifact reduction: Compensate for the effects of motion, e.g. with motion insensitive *syngo* BLADE protocols. - Artifacts reduction: Reduce susceptibility artifacts, using *syngo* WARP. *AutoAlign* - Automated, localizer based positioning and alignment of slice groups to the anatomy, relying on anatomical landmarks. Providing fast, easy, and reproducible patient scanning and supporting the reading by consistently delivering high image quality with a standardized slice orientation. *Inline MPRs - Automatic multiplanar reconstruction for 3D datasets* - The Multi Planar Reconstruction (MPR) tool uses the position information from the AutoAlign algorithm and can be easily configured to automatically generate any required 2D images from high resolution 3D acquisitions. *Guidance View* - Step-by-step user guidance is seamlessly integrated. - Example images and guidance text are displayed for each individual step of the scanning workflow. - Both images and text are easily configurable by the user *syngo WARP - Susceptibility Artifact Reduction* - *syngo* WARP integrates different techniques tailored to reduce susceptibility artifacts caused by orthopedic MR-Conditional metal* implants. 2D TSE sequence combining optimized high-bandwidth protocols and View Angle Tilting (VAT) technique, tailored to reduce susceptibility artifacts caused by orthopedic MR-Conditional metal* implants. This helps in evaluation of soft tissue in proximity of the implant. Available protocols include T1- weighted, T2-weighted, proton density and STIR contrast. *Advanced WARP:* - Advanced WARP application consists of SEMAC, a technique to reduce gross metal* artifacts (i.e. through-plane artifacts) caused by big orthopedic implants. The main clinical applications are in hip and knee joint replacements. Available protocols include T1-weighted, T2-weighted, proton density and STIR contrast.

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Part No. / Product	Description
(Continued) **14441866 DotGO Routine Package #T+D**	*Customization* The LargeJoint Dot Engine can be modified by the user to their individual standard of care. - Add/remove protocol steps - Change guidance content (images and text) - Change or add Dot exam strategies - Add clinical decision points - Add/remove parameters in the parameter viewing card - *MR imaging of patients with metallic implants brings specific risks. However, certain implants are approved by the governing regulatory bodies to be MR conditionally safe. For such implants, the previously mentioned warning may not be applicable. Please contact the implant manufacturer for the specific conditional information. The conditions for MR safety are the responsibility of the implant manufacturer, not of Siemens.
14405224 Composing syngo #Tim	The option features: - Display and storage of full-format images, e.g. of the spine, the central nervous system or the vessel tree (starting from *syngo* MR B13), combined from multiple overlapping stages. - Dedicated composing algorithms, optimized for the generation of anatomical or angiographic (starting from *syngo* MR B13) full-format images. - Data sets with different FoV, resolution, matrix and slice thickness can be combined (starting from *syngo* MR B13). - Generation of full-format images from inline MIPs (starting from *syngo* MR B13). Original, detail and reconstructed images can be displayed in different layouts. Comparison of two reconstructed images for evaluation and diagnosis is thus made possible. Filming in different layouts is supported. Measurements of basic functions via reconstructed images is then possible. Measurements of extended orthopedic functions: scoliotic angle, kyphotic angle, vertical distance measurement and differences in width of the intervertebral spaces. *Prerequisite: SW syngo MR B13.*
14441759 FREEZEit Body MRI Package #T+D	Main Features: - TWIST VIBE is a VIBE sequence with CAIPIRINHA capability providing high spatial resolution. The view-sharing mode provides temporal information to ensure the right contrast timing for different lesions. Dixon is used for fat-water separation. - StarVIBE allows body imaging in free breathing mode, providing a solution for patients without breath hold capabilities.
14416960 Shoulder 16 Coil Kit #Ae	The iPAT compatible Shoulder 16 Large and Shoulder 16 Small are ergonimically designed and adapted to the shape of the shoulder. The different sizes obtain maximum image quality for different body sizes: - 165 mm (6.5 in) diameter for small and medium sized shoulders - 200 mm (7.9 in) diameter for large shoulders The coils can be used either for left or right shoulders. It features sliding attachments to the base plate and can easily be adjusted for comfortable positioning. The coils excels in highest resolution imaging with exceptional signal/noise ratio.
14416962 Foot/Ankle 16 #Ae	The 16-element coil with 16 integrated pre-amplifiers excels in highest resolution imaging with exceptional signal/noise ratio, while taking full advantage of iPAT in all directions. Foot/Ankle 16 is ergonomically designed and features a boot-like coil design. Together with the included stabilization pads the coil allows easy, fast and comfortable patient positioning.

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Part No. / Product	Description
14416983 **2/4/8-ch Sentinelle BreastCoil #Ae**	The 8-channel configuration of the Sentinelle Breast Coil consists of 2 lateral 3-channel coil elements and a 2-channel coil middle element. The 4-channel configuration of the Sentinelle Breast Coil consists of 2 lateral 1-channel coil elements and a 2-channel coil middle element. The 2-channel configuration of the Sentinelle Breast Coil consists of 2 lateral 1-channel coil elements. The Sentinelle Breast Coil supports the Grid biopsy method. The 2-/4-/8-channel Sentinelle Breast Coil delivers brilliant image quality for high-resolution 2D and 3D MR breast imaging. Techniques for reducing scan times, such as parallel imaging, can be used very well. Together with the Tim Whole Body Suite, the coil can also be operated in "feet first" mode. This function substantially improves the examination flow with claustrophobic patients. For optimal patient positioning, a set of comfortable positioning cushions and aids, such as a height-adjustable head rest, is included in the scope of delivery. Furthermore a set of grid plates and a Biopsy Training Starter Kit (not for use on humans) are included in the delivery. The 2-/4-/8-channel Sentinelle Breast Coil measures approx. 1097 mm x 582 mm x 279mm (L x W x H) and weighs approx. 22 kg with base plate and 16 kg without base plate.
08857828 **UPS Cable #Tim**	Power cable to connect the 3 KVA Powerware 9125 small UPS system (pn PWR9125H3000) to the ACC cabinet of the MAGNETOM Avanto/ Espree/ Tim Trio for backing up the host computer and imager. Configuration includes connection box. The standard cable length is 9 m.
14413662 **UPS Powerware PW9130G-3000T-XLEU**	Voltage range: 180 - 276 V Input frequency: 50 / 60 Hz Output voltage: 230 VAC Dimensions (H x W x D): UPS 346 x 214 x 412 mm Incl. UPS bracket set Weight: approx. 36 kg
4MR5142869 **Armrest #MR**	An MR-compatible arm rest that supports the patient's arm on the magnet patient table when starting intravenous lines. The board is removed after the IV is inserted. This product has been tested and verified for compatibility with the following Siemens' products: MAGNETOM Trio, Verio, Espree, Essenza, Avanto, Symphony, Area Skyra and Biograph mMR. Compatibility with other products cannot be assured and may void service contracts and/or system warranties.
KKTECOMR_60 **KKT ECOCHILLER 133L**	**Chiller KKT ECO 133 - L** Function: Supplies dedicated primary chilled water in cases where no chilled water supply is available on site. Air-cooled version, for outdoor installation up to a maximum distance of 25 m for connection to the IFP, incl. 50 m FOC for control. The cooling capacity of the chiller is 60 kW, the chilled water temperature is 20°C, the water flow is 130 l/min. Ambient temperature: -20 to +48°C Connection rating: 28 kW Voltage: 3/PE 400 V to 480 V / 50/60 Hz Fuse rate: 80 A Power consumption: 66 A Dimensions: 2000 mm x 1100 mm x 2100 mm (height x width x depth). Weight: 760 kg Noise level at a distance of 10 m at outside temperatures of:

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14413662 **UPS Powerware PW9130G-3000T-XLEU**	Voltage range: 180 - 276 V Input frequency: 50 / 60 Hz Output voltage: 230 VAC Dimensions (H x W x D): UPS 346 x 214 x 412 mm Incl. UPS bracket set Weight: approx. 36 kg
4MR5142869 **Armrest #MR**	An MR-compatible arm rest that supports the patient's arm on the magnet patient table when starting intravenous lines. The board is removed after the IV is inserted. This product has been tested and verified for compatibility with the following Siemens' products: MAGNETOM Trio, Verio, Espree, Essenza, Avanto, Symphony, Area Skyra and Biograph mMR. Compatibility with other products cannot be assured and may void service contracts and/or system warranties.
KKTECOMR_60 **KKT ECOCHILLER 133L**	**Chiller KKT ECO 133 - L** **Function:** Supplies dedicated primary chilled water in cases where no chilled water supply is available on site. Air-cooled version, for outdoor installation up to a maximum distance of 25 m for connection to the IFP, incl. 50 m FOC for control. The cooling capacity of the chiller is 60 kW, the chilled water temperature is 20°C, the water flow is 130 l/min. Ambient temperature: -20 to +48°C Connection rating: 28 kW Voltage: 3/PE 400 V to 480 V / 50/60 Hz Fuse rate: 80 A Power consumption: 66 A Dimensions: 2000 mm x 1100 mm x 2100 mm (height x width x depth). Weight: 760 kg Noise level at a distance of 10 m at outside temperatures of:

Part No. / Product	Description
(Continued) **KKTECOMR_60** **KKT ECOCHILLER 133L**	**21°C 47 dB(A)** **32°C 52 dB(A)** **48°C 58 dB(A)** **IFP (Interface Panel)** **Main functions of the IFP:** **- Interface function between the KKT chiller and the MR cabinet.** **- Water supply for MREF, MBB, CBB and TX box.** **Additional devices such as integrated differential pressure control, a pressure gage, and a filter are used in order to guarantee the precise functioning of the cooling circuit, especially for the cold head compressor (MREF).** **The connection must be made locally with 2" lines up to a maximum distance of 25 m.** **Dimensions: 800 mm x 1150 mm x 210 mm (height x width x depth).** **Weight: 67 kg**
CHILINST_AVT **Chiller Start-up and Warranty for TIM**	**Start up and initial set up service performed by the chiller manufacturer or designated service representative This service does not include the piping and other prerequisite siting, of the waterchiller, which are the responsibility of the customer.** **12 months warranty and performed by the chiller manufactuer.**
14407261 **MR Workplace Container, 50cm**	**The table design matches the MED-wide uniform design with silver-finished rim, use of friendly colors matching the Siemens color pattern for MAGNETOM and SOMATOM.** **Table height 72 cm, matching the *syngo* Acquisition Workplace and *syngo* MR Workplace console table, for installation in the operator room either directly to the left or right of the *syngo* Acquisition Workplace or *syngo* MR Workplace console table or separately.** **- Width 50 cm** **- Depth 80 cm** **- Height 72 cm** **Alternatively this casing is also suited for the Recon image processor (except for the MR systems with the Tim generation: there the Recon image processor is always placed inside the electronics cabinet).**
14407259 **MR Workplace Table, height adjust.**	**The table design matches the MED-wide uniform design with silver-finished rim, use of friendly colors matching the Siemens color pattern for MAGNETOM and SOMATOM.** **This table can electrically be adjusted to the ergonomically most suitable height via buttons at the front.** **- Width 138 cm** **- Depth 80 cm** **- Height electrically adjustable between 68 cm and 118 cm**
14402527 **SWI #Tim**	**Despite a strong sensitivity for local magnetic field inhomogeneities Susceptibility Weighted Imaging (SWI) as a 3D technology keeps up the signal near large susceptibility leaps due to very thin slices and high resolution in the slice (high image quality e.g. in the area of the forebrain near the frontal sinus).** **Moreover, the phase information of the MR signal is integrated in the image display. In order to further increase sensitivity for localized microscopic magnetic field inhomogeneities, large-area magnetic field inhomogeneities (e.g. caused by susceptibility leaps near the sinus) are specifically suppressed in the phase images** **This allows even small amounts of deoxygenated hemoglobin (e.g. in cerebral veins) or from products of hemoglobin decomposition (e.g. from hemorrhages) to be displayed.** **Interesting measuring times for the ultra-high-resolution 3D protocols are achieved through parallel imaging with IPAT (GRAPPA).** **The Susceptibility Weighted Imaging package includes:** **- SWI measuring sequence, IPAT compatible** **- optimized measuring protocols for the head** **- Inline-postprocessing for automatic calculation of relevant images within the scope of image reconstruction:** **- calculation of susceptibility-weighted images** **- venous angiography: MIP of a thin slice block**

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Part No. / Product	Description
(Continued) **14402527** **SWI #Tim**	SWI has been optimized for clinical use to support diagnostics with cerebrovascular diseases (e.g. cerebral insult) venous malformation, brain trauma and tumors. *Prerequisite: Software syngo MR B13*
14416972 **Tim Coil Interface 1.5T**	This adapter will be required if the following coils will be used: - Tx/Rx 15-channel Knee Coil (two adapters required) - CP Extremity Coil - 4-channel BI Breast Coil - 16-channel AI Breast Coil (two adapters required) - (2/4)/8-channel Sentinelle BreastCoil - (2/10)/16-channel Sentinelle BreastCoil (two adapters required) The adapter can be plugged in any the SlideConnect plug of the system. The Tim Coil Interface has a compact design and measures only approx. 190 mm x 90 mm x 33 mm (W x H x D).
14441789 **Tx/Rx 15-channel Knee Coil DDST Elevate**	Thanks to its 15-channel design this coil is perfectly suited for high-resolution images with excellent SNR. With the arrangement of the antennas in three rings of 5 elements each, the coil is specially designed for parallel imaging with high acceleration factors. The coil is positioned on a laterally movable support and therefore allows for comfortable patient positioning of both legs for off-center examinations. SlideConnect Technology allows for fast and easy patient preparation, resulting in less table time. Furthermore, the upper part can be removed for easier patient positioning. Additional cushions allow for optimum patient immobilization. The integrated transmission function makes volume-sensitive excitation with greatly reduced RF power possible on the one hand and, on the other, prevents aliasing artifacts (e.g. due to the other knee).
14441788 **Hand/Wrist 16 #Ae (Elevate)**	The 16-element coil with 16 integrated pre-amplifiers excels in highest resolution imaging with exceptional signal/noise ratio, while taking full advantage of iPAT in all directions. Hand/Wrist 16 is ergonomically designed and adapted to the shape of the hand/wrist region. The coil features a hinged design of the upper part and slidable attachment to the base plate. Together with the included stabilization pads the coil allows easy, fast and comfortable patient positioning.
14446611 **Body 18 long #Ae (ELEVATE)**	The Body 18 1.5T long has a 18-element design with 18 integrated preamplifiers that are arranged in 3 clusters of 6 coil elements each. This ensures excellent signal-to-noise ratio. It can be positioned in different orientations and addresses the requirement range for the examinations of obese patient to pediatric patients. The light weight coil improves patient comfort and can be easily connected via SlideConnect technology. The coil's extended cable allows for more flexibility in connector selection which is especially helpful if multiple flexible coils need to be combined and challenging imaging set-ups need to be supported like in therapy imaging (e.g. for combined head-neck exams). No tuning of the fully iPAT-compatible Body 18 1.5T long is necessary allowing for effiecient and patient friendly set-up. In case of Radiation Therapy imaging, the Body 18 1.5T long will be typically combined with : - Flex 4 coil(s) - Body 18 coil(s) - Spine 32 coil In case of imaging in the context of neuro- and cardiovascular interventions, the Body 18 1.5T long will be typically combined with: - Body 18 coil(s) - Combi Coil Base (only in combination with the Combi Dockable Table: allows to combine the Body 18 long with a Body 18 (standard cable length) and to use the combination as spine coil in situations where the patient is positioned on a transfer board so that the regular Spine 32 cannot be used) The dimensions of the Body 18 1.5T long are 395 mm x 590 mm x 95 mm

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Part No. / Product	Description
(Continued) 14446611 Body 18 long #Ae (ELEVATE)	(3.5 lbs), whereas the patient feels as little weight as 1.1 kg (2.5 lbs). The cable length is 168 cm, which compared to the Body 18 1.5T (with standard cable length) is 70 cm more.
14456114 Advanced Diffusion (ELEVATE)	RESOLVE is a diffusion-weighted, readout-segmented EPI sequence optimized towards high resolution imaging with reduced distortions. The sequence uses a very short echo-spacing compared to single-shot EPI, substantially reducing susceptibility effects. A 2D-navigator correction is applied to avoid artefacts due to motion-induced phase errors. This combination allows diffusion weighted imaging of the breast, prostate (SEEit sequence for prostate DWI), brain and spine with a high level of detail and spatial precision. Additionally, an automatic reacquisition of data with large phase errors can be used to ensure that diffusion-weighted images of the brain are not affected by CSF pulsation. QuietX DWI protocols for the brain utilize QuietX, an intelligent algorithm which effectively reduces noise through summation of gradients and reduction of slew rates while keeping timing parameters within the same range. All features and contrasts of DWI remain available, delivering image quality comparable to a conventional single shot diffusion sequence, while providing at least 70% sound pressure reduction for increased patient comfort.
14416952 Coil Storage Cart #T+D (Optional)	The cart may be rolled to convenient locations in the examination room and can be opened up to work like a shelf. The coil storage cart has multiple drawers and trays as well as many other storage spaces for coils, cushions and miscellaneous items. Its dimensions are: Width 140 cm (4' 7") when closed and 280 cm (9' 12") when opened, depth 54 cm (1'9") and height 121 cm (3'12").

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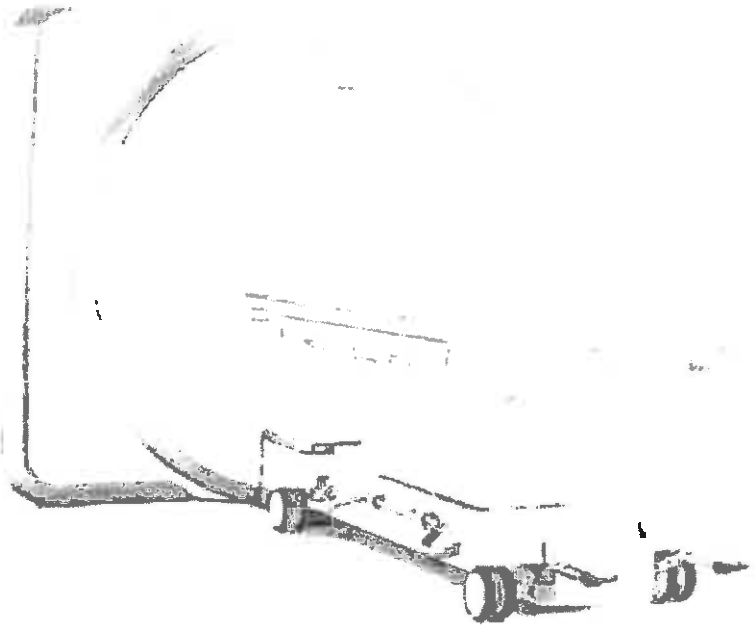
MAGNETOM AERA 1.5T

TYPICAL ROOM PLAN



The intended use for this Cut Sheet is to communicate the spatial requirements as well as the basic architectural, electrical, structural, and mechanical requirements for this piece of imaging equipment. The information provided in this document is for reference only, during the pre-planning stage, and therefore does not contain any site specific detailed requirements. This information is subject to change without notice. Federal, state and/or local requirements may impact the final placement of the components. It is the customer's responsibility to ensure that the final layout and placement of the equipment complies with all applicable requirements.

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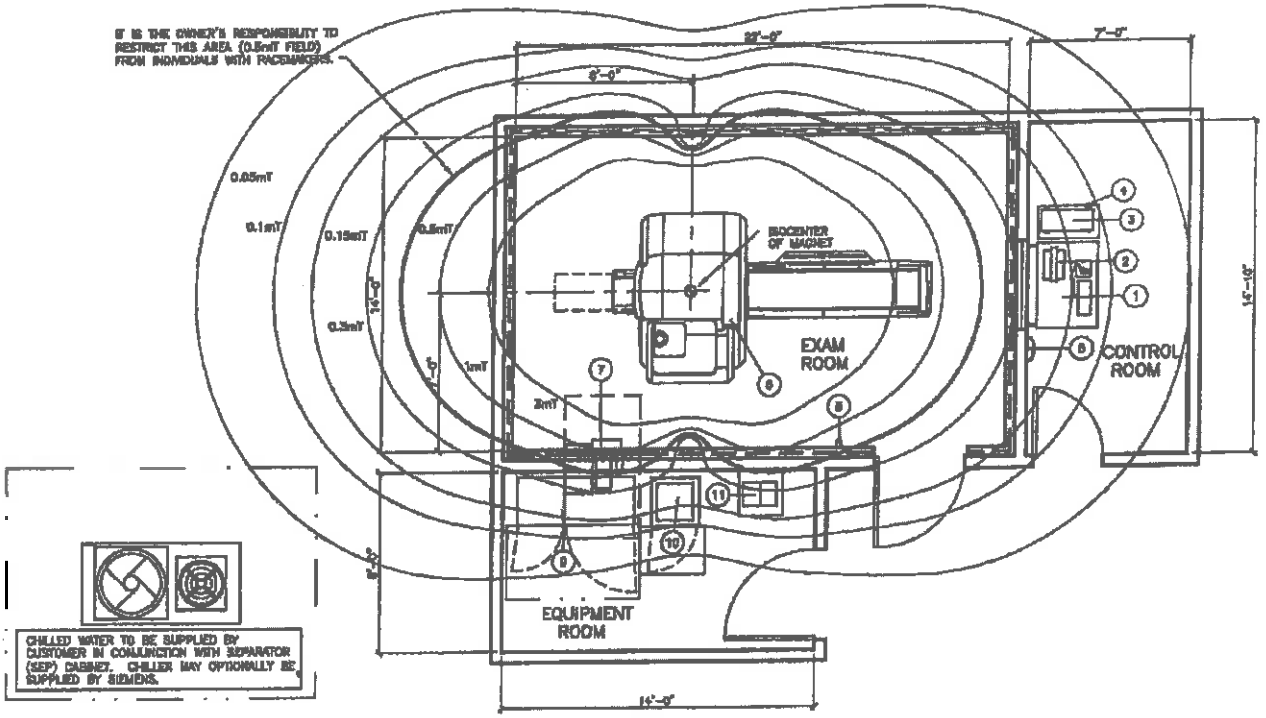
MAGNETOM AERA 1.5T

TYPICAL ROOM PLAN



TYPICAL PLAN SCALE: 1/8" = 1'-0"

EQUIPMENT LEGEND

NO	DESCRIPTION	SMS SYM	WEIGHT (LBS)	BTU/HR TO AIR	DIMENSIONS (INCHES) W	D	H	REMARKS
(1)	MRC OPERATING CONSOLE AND KEYBOARD	(65)	132	---	45 11/16	35 1/4	28 3/8	
(2)	COLOR MONITOR FOR MRC	(64)	22	239	18 5/16	16 15/16	4 3/4	ON CONSOLE/COUNTER
(3)	HOST PC MRC	(63)	49	2,389	11	27	15 1/8	
(4)	CONTAINER FOR HOST 500	(62)	238	---	19 5/8	31 1/2	28 3/8	
(5)	ALARM BOX	(61)	2	---	9	4	9	
(6)	1.5T MAGNET WITH COVERS AND PATIENT TABLE	(8)	10,093	3,415	91	170	86	
(7)	RF--FILTER PLATE	(71)	285	853	48 1/2	21 3/4	21 1/2	
(8)	MAGNET STOP	(66)	1	---	3	5	3	
(9)	ELECTRONICS CABINET (GPA/EPC CABINET)	(67)	3,307	13,649	61 1/2	28	77 1/2	
(10)	SEP CABINET	(69)	750	3,415	25 5/8	25 5/8	73 5/8	
(11)	POWERWARE 9130 UPS WITH EBM (OPTION)	(70)	186	1,257*	16 7/8	12 7/8	16 1/4	*1,755 ON BATTERIES

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MAGNETOM AERA 1.5T

SPECIFICATIONS

POWER REQUIREMENTS

VOLTAGE RANGE: 480 VAC ±10% FOR ALL LINE AND LOAD CONDITIONS.
VOLTAGE BALANCE: 2% MAXIMUM DIFFERENCE BETWEEN PHASES

FREQUENCY:	60 Hz ± 1.0 Hz
LINE IMPEDENCE:	95 mOHMS
STAND BY POWER CONSUMPTION	9.0 kW
TYPICAL POWER CONSUMPTION DURING EXAM	20.1 kW
CONNECTION VALUE (LESS THAN 5 MINUTES)	110 KVA
MOMENTARY POWER	140 KVA
RECOMMENDED TRANSFORMER	150 KVA
MR SYSTEM OVERCURRENT PROTECTION	150 AMPS
RECOMMENDED UPS	160 KVA
UPS SYSTEM OVERCURRENT PROTECTION	250 AMPS
MAX. ALLOWABLE VOLTAGE DROP AT MAX. POWER	6.0%

POWER REQUIREMENTS

DEMAND AND CAPACITY REQUIREMENTS NOTES

1) IF EQUIPMENT UPGRADE IS ANTICIPATED, INSTALLING ELECTRICAL POWER TO MEET THE REQUIREMENTS OF THE HIGHER POWER GRADIENT PACKAGE AT THE TIME OF INITIAL INSTALLATION WILL REDUCE THE COST TO UPGRADE THE ELECTRICAL SYSTEM LATER.

2) RECOMMENDED TRANSFORMER SIZE (SYSTEM WITHOUT UPS) IS BASED ON INDUSTRY STANDARD ISOLATION TRANSFORMER KVA RATINGS. SOURCE IMPEDANCE FEEDING THE MAGNETOM SYSTEM, INCLUDING ANY ISOLATION TRANSFORMERS, MUST MEET EQUIPMENT REQUIREMENTS AS LISTED HERE. SIEMENS RECOMMENDS A TRANSFORMER WITH COPPER WINDINGS, AN ELECTRO-STATIC SHIELD, AND A LOW IMPEDANCE (<3%) TO ENSURE THAT SOURCE IMPEDANCE REQUIREMENTS ARE MET.

3) OVERCURRENT PROTECTION IS SPECIFIED FOR SYSTEMS WITHOUT AN UNINTERRUPTIBLE POWER SUPPLY (UPS). ADDITION OF A UPS REQUIRES A HIGHER CAPACITY MAINS CONNECTION (DEPENDENT UPON UPS MODEL AND SIZE).
MAXIMUM FAULT CURRENT IS DEPENDENT UPON THE IMPEDANCE OF THE FACILITY ELECTRICAL SYSTEM. CUSTOMER'S ARCHITECT OR ELECTRICAL CONTRACTOR TO SPECIFY AIC RATING OF OVERCURRENT PROTECTION BASED ON FACILTY IMPEDANCE CHARACTERISTICS.

4) MOMENTARY POWER IS BASED ON A MAXIMUM RMS VALUE FOR A PERIOD NOT TO EXCEED FIVE (5) SECONDS, AS DEFINED IN NEC 517.2. STAND-BY AND AVERAGE CURRENT ARE SUBSTANTIALLY LOWER.

5) THE CONDUCTOR SIZE SHOULD BE SELECTED TO MEET THE VOLTAGE DROP REQUIREMENTS, TAKING INTO CONSIDERATION THE MAINS CAPACITY, RUN LENGTH, AND ANY ADDITIONAL TRANSFORMERS USED TO OBTAIN THE PROPER EQUIPMENT VOLTAGE LEVEL. NEMA STANDARD XR-9-1989 (R1994,R2000) PROVIDES GENERAL GUIDELINES FOR SIZING CONDUCTORS, TRANSFORMERS, AND ELECTRICAL SYSTEMS FOR MEDICAL IMAGING SYSTEMS.

6) LONG-TIME POWER IS BASED ON THE HIGHEST AVERAGE RMS VALUES FOR A PERIOD EXCEEDING 5 MINUTES DURING CLINICAL SYSTEM OPERATION, AS DEFINED IN NEC 517.2.

7) A CIRCUIT BREAKER WITH A HIGH INRUSH RATING (>8x RATED CURRENT) IS REQUIRED TO PERMIT SWITCH-ON OF THE UPS SYSTEM WITHOUT SPURIOUS TRIPPING. CIRCUIT BREAKERS WITH AN ADJUSTABLE MAGNETIC TRIP (SIEMENS FD8 SERIES OR SIMILAR) ARE HIGHLY RECOMMENDED.

NOISE LEVELS

SYSTEM ROOM	NOISE LEVEL / dB(A)
CONTROL ROOM	<55
EXAMINATION ROOM	86.1 dB(A) – 8 HOUR AVERAGE 108.2 dB(A) MAXIMUM
EQUIPMENT ROOM	<85

IT IS THE CUSTOMER'S RESPONSIBILITY TO ENSURE THAT ALL LOCAL/STATE/OSHA NOISE REGULATIONS ARE ADHERED TO. ADDITIONAL NOISE DATA MAY BE PROVIDED BY SIEMENS PROJECT MANAGER UPON REQUEST.

CEILING HEIGHTS

EXAM ROOM 7'-11" MINIMUM
CONTROL ROOM 6'-11 MINIMUM
EQUIPMENT ROOM 7'-3" MINIMUM

REMOTE SYSTEM DIAGNOSTICS

SIEMENS REMOTE SERVICES (SRS) REQUIRES A CONNECTION BETWEEN THE SRS REMOTE SERVER AND SIEMENS SYSTEMS VIA REMOTE LOCAL AREA NETWORK ACCESS, TO ENSURE THE UPTIME OF YOUR SYSTEM.

THIS SERVICE REQUIRES ONE OF THE FOLLOWING CONNECTION METHODS:
1. (PREFERRED) VPN – WHERE THE CUSTOMER HAS AVAILABLE A VPN CAPABLE FIREWALL OR OTHER VPN APPLIANCE.
2. (OPTIONAL) "SRS ROUTER" – CONNECTED TO ANALOG PHONE LINE VIA "ANALOG MODEM", ETHERNET CONNECTION TO CUSTOMER'S LAN, AND A POWER OUTLET. NOTE: = "SUPPLIED BY SIEMENS"

FOR MORE INFORMATION

FOR MORE DETAILED PLANNING REQUIREMENTS FOR THIS SYSTEM, SEE THE TYPICAL FINAL DRAWING SET NUMBER: 10023

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MAGNETOM AERA 1.5T

SPECIFICATIONS

CHILLED WATER SUPPLY

A CHILLED WATER SUPPLY IS REQUIRED TO THE MRI SYSTEM 24 HOURS A DAY, YEAR ROUND FOR THE COLD HEAD AND GRADIENT SYSTEMS. THIS CAN BE PROVIDED BY A CENTRAL CHILLED WATER SUPPLY OR A SEPARATE STAND ALONE CHILLER THAT MEETS THE STATED REQUIREMENTS. THE CHILLED WATER CAN ALSO BE SUPPLIED BY A DEDICATED KRAUS ECO CHILLER AND INTERFACE PANEL.

WITHOUT THE USE OF A DEDICATED KRAUS CHILLER, A SEP (SYSTEM SEPARATOR CABINET), MUST BE INCLUDED WITH THE SIEMENS ORDER. THE PIPE SIZE BETWEEN THE KRAUS CHILLER AND INTERFACE PANEL, OR BETWEEN THE WATER SUPPLY AND SEP MUST BE 2 INCH UP TO 62 FEET, 2-1/2 INCH UP TO 148 FEET, CONSULT FOR LONGER PIPE. PERMISSIBLE MATERIALS THAT CAN BE USED FOR THE PIPING ARE: STAINLESS STEEL (V2A, V4A), NON-FERROUS METAL (COPPER, BRASS), SYNTHETIC MATERIAL, PLASTICS, BRAZING SOLDER, HARD SOLDER, OR FITTING SOLDER TYPE 3 AND 4. THERE ARE MATERIALS THAT MAY CAUSE DAMAGE TO THE COOLING SYSTEM AND CANNOT BE USED, THESE MATERIALS ARE ALUMINUM, IRON, CARBON STEEL, ZINC, ZINC PLATED STEEL, OR STANDARD STEEL PIPES.

THESE REQUIREMENTS ARE REQUIRED FOR NEW INSTALLATIONS, IF EXISTING WATER PIPES COMPLY WITH SIEMENS WATER SPECIFICATIONS, THEY DO NOT NEED TO BE REPLACED.

NORMAL TAP WATER MUST BE AVAILABLE FOR FILLING THE SECONDARY WATER CIRCUIT. THERE SHALL BE A HOSE BIB LOCATED WITHIN 65' OF THE SEP, IFP, ADC OR THE KRAUS CHILLER.

THE SUPPLY AND RETURN CHILLED WATER PIPES MUST BE LABELED. THE LOCATION OF THE LABELS MUST BE AT ALL CONNECTION AND REFILLING POINTS AND MUST CONTAIN FLOW DIRECTION AND CONTENTS.

ENVIRONMENTAL REQUIREMENTS

1) AIR CONDITIONING IS TO PROVIDE A TEMPERATURE OF 70°F ±5°F IN THE EXAM ROOM, 70°F±10°F IN THE EQUIPMENT & CONTROL AREAS. RELATIVE HUMIDITY OF 40-60% (NON-CONDENSING) IS REQUIRED EXAMINATION ROOM AND 40-80% (NON-CONDENSING) IN ALL OTHER AREAS WHERE SIEMENS EQUIPMENT IS INSTALLED. THESE CONDITIONS ARE TO BE MET AT ALL TIMES: 24 HOURS A DAY, 7 DAYS A WEEK.

2) A DEDICATED AIR CONDITIONING AND HUMIDIFICATION SYSTEM IS RECOMMENDED FOR THE EXAM ROOM. A MINIMUM AIR EXCHANGE RATE OF 6 TIMES PER HOUR FOR THE EXAM ROOM IS REQUIRED. IT IS RECOMMENDED TO INSTALL A FRESH AIR SYSTEM WITH 30%-50% FRESH AIR INTAKE.

AIR SUPPLY AND RETURN ABOVE THE FINISHED CEILING IN THE EXAM ROOM IS RECOMMENDED. EACH ROOM SHOULD HAVE A DEDICATED CONTROL AND SENSOR TO MONITOR AND ADJUST THE AIR.

3) THE HEAT INTO THE EXAM ROOM IS LESS THAN 10,238 BTU/HR. THE HEAT INTO THE EQUIPMENT ROOM IS LESS THAN 3,412 BTU/HR. THIS HEAT DISSIPATION IS FROM THE SIEMENS EQUIPMENT ONLY, AUXILIARY SUPPORT EQUIPMENT (ie UPS) AND LIGHTING MUST BE CONSIDERED FOR TOTAL HEAT LOADS.

4) IT IS IMPORTANT FOR FRESH AIR INTAKE SYSTEMS TO EXHAUST AIR DIRECTLY OUT OF THE BUILDING. THE EXHAUST AIR MUST NOT BE DEFLECTED INTO ANOTHER ROOM. THE MAGNET ROOM EXHAUST AIR SHOULD BE INSTALLED AT LEAST 6'-6" ABOVE FINISHED FLOOR.

5) THE AIR INTAKE OF THE AIR CONDITIONING SYSTEM MUST NOT BE LOCATED IN THE VICINITY OF THE QUENCH VENT EXHAUST.

6) IF THE INPUT DRAWS UPON AIR FROM OUTSIDE THE BUILDING, IT IS RECOMMENDED TO INSTALL AN ON-SITE FILTER TO REMOVE DUST PARTICLES GREATER THAN 10 MICRONS.

7) DO NOT LOCATE ANY HVAC DIFFUSERS ABOVE THE MAGNET. THERE SHALL NOT BE AIR BLOWING DIRECTLY ON THE MAGNET.

CHILLED WATER REQUIREMENTS

WATER REQUIREMENTS TO BE MEASURED AT THE SEP CABINET.

FLOW RATE:	23.78-29.05 GPM
WATER TEMPERATURE:	46°F ±4°F
BTU DISCHARGE TO THE WATER	204,729 BTU/HR
WATER PRESSURE	MAXIMUM 87 PSI
LOSS OF PRESSURE FOR SEP CABINET	14.5 PSI MAXIMUM
CHILLED WATER ACIDITY RANGE	6 pH TO 8 pH
CHILLED WATER HARDNESS	<250 ppm CALCIUM CARBONATE
CHLORINE GAS CONCENTRATION	<200 ppm
FILTRATION	500 µm

FOR INSTALLATION OF A KRAUS KSC 215 CHILLER, IT IS THE RESPONSIBILITY OF THE CUSTOMER/MECHANICAL CONTRACTOR TO PROVIDE A MIXTURE OF WATER WITH 35%-38% ETHYLENE GLYCOL PRIOR TO CHILLER START UP. DO NOT USE PROPYLENE GLYCOL OR AUTOMOTIVE ANTI-FREEZE.

THE AMOUNT OF THE MIXTURE MUST FILL THE CHILLER, MR SYSTEM AND PIPING (SUPPLY AND RETURN), SEE EXAMPLES BELOW.

(1) GALLON OF UNDILLUTED GLYCOL, OR (2) GALLONS OF WATER/GLYCOL MIXTURE MUST REMAIN ON SITE FOR USE AFTER START UP.

MIXTURE VOLUME INCLUDING SUPPLY & RETURN+15 GAL. CHILLER & MR

PIPE DIAMETER	TOTAL LENGTH	MIXTURE VOLUME	GLYCOL NEEDED
2"	100'	31.3 GALLONS	11.9 GALLONS
2"	200'	47.6 GALLONS	18.1 GALLONS
2.5"	100'	40.5 GALLONS	15.4 GALLONS
2.5"	200'	66.0 GALLONS	25.1 GALLONS

MIXTURE VOLUME = 3.14 x (PIPE RADIUS)^2 x PIPE LENGTH + 15 GALLONS.
GLYCOL AMOUNT = 36-38% OF MIXTURE VOLUME.

QUENCH VENT NOTES

LIQUID AND GASSEOUS HELIUM ARE USED IN THE OPERATION OF A SUPERCONDUCTING MRI SYSTEM. THE MECHANICAL CONTRACTOR SHALL PROVIDE A VENT, ACCORDING TO SIEMENS SPECIFICATIONS, TO EXHAUST GASSEOUS HELIUM FROM THE MAGNET TO OUTSIDE THE BUILDING. PLEASE SEE THE SIEMENS TYPICAL DRAWINGS FOR DETAILS.

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MAGNETOM AERA 1.5T

SPECIFICATIONS

PROTECTING THE ENVIRONMENT

PROTECTING THE IMMEDIATE ENVIRONMENT FROM THE EFFECT OF THE MAGNETIC FIELD REQUIRES CONSIDERATION. INFORMATION STORED ON MAGNETIC DATA CARRIERS SUCH AS DISKS, TAPES, AND CREDIT CARDS MAY BE ERASED IF IN CLOSE PROXIMITY. CAUTION WITH REGARD TO HEART PACEMAKERS MUST BE EXERCISED. MOST PACEMAKER UNITS EMPLOY A REED RELAY WHICH MAY CHANGE OPERATING MODE WHEN EXPOSED TO AN EXTERNAL MAGNETIC FIELD. THEREFORE, PACEMAKER USERS MUST BE KEPT AT A SPECIFIED DISTANCE FROM THE MAGNET WHICH IS DETERMINED BY THE MAGNETIC FIELD STRENGTH.

PROTECTING THE MAGNETIC FIELD

THE SIEMENS MAGNETOM UTILIZES A SUPERCONDUCTIVE MAGNET WITH AN EXTREMELY HOMOGENEOUS FIELD WITHIN THE MAGNET TO PROVIDE DISTORTION-FREE IMAGING. THE PRESENCE OF FERROMAGNETIC MATERIAL WITHIN THE VICINITY OF THE MAGNET CAN ADVERSELY AFFECT THE UNIFORMITY OF THE USEFUL MAGNETIC FIELD. THIS APPLIES TO STATIONARY FERROUS MATERIAL (STRUCTURAL STEEL) WHICH IS TO BE MINIMIZED. STATIONARY STEEL COMPENSATION MAY BE ACHIEVED BY MAGNET POSITIONING AND SELECTIVE USE OF SHIMS. FIELD DISTORTION ENCOUNTERED BY MOVING FERROMAGNETIC OBJECTS IS MORE DIFFICULT TO COMPENSATE AND MAY REQUIRE THE USE OF MAGNETIC SHIELDING.

MAGNETIC FRINGE FIELDS

MAGNETIC FIELDS MAY AFFECT THE FUNCTION OF DEVICES IN THE VICINITY OF THE MAGNET. THESE DEVICES MUST BE OUTSIDE CERTAIN MAGNETIC FIELDS. THE DISTANCES LISTED ARE FROM THE MAGNET ISOCENTER AND DO NOT CONSIDER ANY MAGNETIC ROOM SHIELDING.

X/Y AND Z AXIS	DEVICES
6'-1" / 9'-2" 3.0mT	SMALL MOTORS, WATCHES, CAMERAS, CREDIT CARDS, MAGNETIC DATA CARRIERS (SHORT-TERM EXPOSURE)
7'-3" / 11'-6" 1.0mT	COMPUTERS, MAGNETIC DISK DRIVES, OSCILLOSCOPES, PROCESSORS
8'-3" / 13'-2" 0.5mT	CARDIAC PACEMAKERS, X-RAY TUBES, INSULIN PUMPS, B/W MONITORS, MAGNETIC DATA CARRIERS (LONG-TERM STORAGE)
9'-9" / 16'-1" 0.2mT	SIEMENS CT SCANNERS
10'-4" / 17'-1" 0.15mT	COLOR MONITORS, SIEMENS LINEAR ACCELERATORS
13'-1" / 22'-3" 0.05mT	X-RAY IMAGE INTENSIFIERS, GAMMA CAMERAS, PET/CYCLOTRON, ELECTRON MICROSCOPES, LINEAR ACCELERATORS

THE OWNER/USER IS TO VERIFY THE LOCATION OF THE 0.5mT FIELD AND ENSURE THAT IT IS MAINTAINED AS A RESTRICTED AREA.

MAGNET SITING REQUIREMENTS

IT MUST BE ENSURED THAT THE MAGNET IS LOCATED SO THAT THE STABILITY AND HOMOGENEITY OF THE MAGNETIC FIELD ARE NOT ADVERSELY AFFECTED BY EXTRANEOUS FIELDS AND STATIC OR DYNAMIC FERROMAGNETIC OBJECTS.

X/Y AND Z AXIS	SOURCE OF INTERFERENCE
3'-6"	STEEL REINFORCEMENT RODS IN FLOOR - MAXIMUM 20 LBS/SQ. FT.
18'-1" / 21'-4"	STRETCHERS UP TO 110 LBS.
13'-1"	A/C CHILLERS
19'-9" / 23'-0"	TRANSPORT DEVICES UP TO 440 LBS.
21'-4 / 26'-3"	VEHICLES UP TO 2,000 LBS.
23'-0" / 31'-3"	ELEVATORS, TRUCKS UP TO 10,000 LBS.
39'-4"/26'-2"	AC TRANSFORMERS LESS THAN 100 KVA
41'-0"/32'-9"	AC TRANSFORMERS LESS THAN 250 KVA
42'-7"/39'-4"	AC TRANSFORMERS LESS THAN 650 KVA
45'-11"/49'-3"	AC TRANSFORMERS LESS THAN 1600 KVA
9'-10"/8'-6"	AC CABLES, MOTORS LESS THAN 100 AMPS
22'-11"/9'-10"	AC CABLES, MOTORS LESS THAN 250 AMPS
131'-2"	ELECTRIC RAILWAY SYSTEMS

FOR IRON OBJECTS LOCATED UP TO 45' FROM THE Z AXIS, THE DISTANCES FOR THE Z AXIS MUST BE USED. REDUCTION IS POSSIBLE WITH STEEL SHIELDING.

MAXIMUM CABLE LENGTH

THERE ARE 3 DIFFERENT LENGTHS OF CABLE THAT ARE AVAILABLE FOR THE MRI SYSTEM DIFFERENTIATED BY MAXIMUM LENGTHS FROM THE MAGNET TO THE FILTER PANEL (INSIDE) AND FROM THE FILTER PANEL TO THE ELECTRONICS (OUTSIDE).

INSIDE	OUTSIDE
20'	4'
20'	32'
20'	39'

THE VERTICAL DISTANCE FOR CABLE TRAVEL FROM THE FILTER PANEL TO THE CABLE TRAY, AND FROM THE CABLE TRAY TO THE MAGNET MUST BE CONSIDERED.

THE MAXIMUM DISTANCE FROM THE ACC CABINET TO THE CONTROL CONSOLE IS 75 FEET.

SIEMENS

FOR REFERENCE ONLY,
NOT FOR CONSTRUCTION.

MAGNETOM AERA 1.5T

SPECIFICATIONS

RF SHIELDING

THE EXAMINATION AREA MUST BE SHIELDED TO PROVIDE A REDUCTION OF RADIO FREQUENCY WAVES EMANATING FROM EXTERNAL TRANSMITTERS. THE REQUIRED ATTENUATION IS 90dB IN THE FREQUENCY RANGE OF 15–128 MHz. IF CO–SITING TWO SYSTEMS EACH ROOM SHOULD BE 100 dB. THE RF SHIELD MUST BE TESTED BEFORE AND AFTER MAGNET PLACEMENT IN THE RF ROOM AND AFTER THE SIEMENS RF FILTER PANEL IS INSTALLED.

THE RF–SHIELDING MUST BE INSULATED FROM ALL GROUNDS SUCH THAT THE ONLY GROUND IS THE SINGLE POINT GROUND ON THE OUTSIDE OF THE RF–ROOM WALL. RESISTANCE ≥ 100 OHMS.

ALL ELECTRICAL LINES INTO THE RF ROOM MUST BE ROUTED THROUGH RF FILTERS (PROVIDED BY RF SHIELDING SUPPLIER).
ALL ELECTRICALLY NON–CONDUCTIVE SUPPLY LINES (E.G. FIBER OPTIC CABLES, OR HOSES) INTO THE RF ROOM MUST BE ROUTED THROUGH RF SEALED WAVEGUIDES (PROVIDED BY RF SHIELDING SUPPLIER).

FOR PRESSURE EQUALIZATION PURPOSES THE RF DOOR SHOULD OPEN TO THE OUTSIDE OF THE RF ROOM. AS AN ALTERNATIVE A 24"X24" OPENING IN THE RF ROOM FOR PRESSURE EQUALIZATION IS REQUIRED.

BUILDING VIBRATIONS

VIBRATION OF THE SITE HAS THE ABILITY TO AFFECT THE STABILITY AND HOMOGENEITY OF THE MAGNETIC FIELD. THEREFORE EXTERNAL VIBRATIONS OR SHOCKS AFFECTING THE MAGNET MAY DEGRAGE IMAGE QUALITY. IN THE THREE SPATIAL ORITENTATIONS THE BUILDING MUST NOT EXCEED ACCELERATION OF 0.001m/s or –80dB(g) g=9.81 m/s

THE REQUIREMENT FOR a_{max} IS MEASURED AS MAXIMUM RMS VALUE PER FREQUENCY COMPONENT <0.5Hz IN THE FOURIER TRANSFORMATION OF THE RECORDED SIGNAL (SPECTRUM).

THE VIBRATION LEVEL OF CONTINUOUS VIBRATIONS (CAUSED BY AIR CONDITIONER, COMPRESSOR, ETC.) AT THE LOCATION OF THE MAGNET MUST NOT EXCEED THE SPECIFED VALUES.
FOR ALL NON–CONTINOUS TRANSIENT VIBRATIONS THE FIGURES SHOULD BE MULTIPLIED BY 4 (OR 12dB).

CONTACT SIEMENS PROJECT MANAGER FOR MORE DETAILS.

TRANSPORTING REQUIREMENTS

LARGEST ITEM – MAGNET – 9,566 LBS.

MINIMUM MAGNET DIMENSIONS WITH TRANSPORT WHEELS UNDER MAGNET:

7'–7" HIGH X 7'–7" WIDE X 5'–2" DEEP WITHOUT TABLE SUPPORT, 6'–0" DEEP WITH TABLE SUPPORT.

THE ROOF HATCH/DELIVERY OPENING SHOULD BE 4" LARGER.

TO TRANSPORT THE GPA/EPC CABINET (3,307 POUNDS) A MINIMUM ROOM HEIGHT OF 8'–9" IS REQUIRED, 8'–3" WITH WHEELS REMOVED, 6'–1" WITH WHEELS AND MAINS CONNECTION REMOVED.

EXHIBIT 4

SHAREDIMAGING
CHANGE. SOLVED.

QUOTATION

EXHIBIT A

Quote #:	AAAQ1800
Date:	6/26/2017
Expires:	9/29/2017

Prepared For: Becky Eyler
Poplar Bluff Regional Medical Center
3100 Oak Grove Rd
Poplar Bluff, MO 63901

Submitted By: David Stachowiak
630-483-3980

Selection	System	Description	Term	Price Per Week
	Interim MR System In a Medical Coach	GE 1.5T Excite HD 12.0, 8-Channels MR System	6 Weeks	$6,500.00

*All Equipment is Subject to Availability

Shared Imaging Provides:

1. Equipment - GE 1.5T HD MRI System with Excite HD 12.0 Software, 8-Channels in a Medical Coach with Power Injector.
2. Service and Proactive Maintenance Coverage - including all parts, labor (8:00AM - 5:00PM, M-F), and ogens. Overtime coverage it the responsibility of the Client.
3. Transportation to and from customer site.
4. Set-up of Equipment at customer prepared site.
5. Check out of the MR by the manufacturer's service engineer.
6. Comprehensive Insurance.

Client Provides:

1. Prepared site (with power), preferably 2-3 days in advance of requested start date.
2. Technologists.
3. FACs.
4. Supplies - contrast media, film, gowns, etc.
5. Initial Payment of $26,000 (includes Transportation and Initial Term charges of four (4) weeks) is required prior to commenencement of delivery. Payments for all extensions are due at the beginning of that extension period.
6. Copy of Sales Tax Exemption Certificate if you are tax exempt or the name of your county along with the sales tax rate to be charged if you are not. Also your deposit should include sales tax if you are taxable.

Approval/Initials _____

Approval/Initials _____

SHAREDIMAGING

INTERIM EQUIPMENT LEASE AGREEMENT

This **AGREEMENT** is dated this _____ day of _____, by and between _____ _____ (please print formal legal name) organized in the State of _____ Tax ID# _____ (Tax ID#) (hereafter "CLIENT") located at _____ _____ and Shared Imaging, LLC (hereafter "SHARED"), located at 801 Phoenix Lake Avenue, Streamwood, Illinois 60107.

WHEREAS SHARED will provide equipment in the field of medical diagnostic imaging, and

WHEREAS CLIENT wishes to have access to diagnostic imaging equipment necessary to make available to its patients diagnostic imaging services, and

WHEREAS it is the intent of this **AGREEMENT** that diagnostic imaging equipment (hereafter the Equipment, as more specifically outlined in Exhibit A attached hereto and incorporated herein) be placed at **CLIENT's** location.

NOW THEREFORE, in consideration of the mutual covenants and promises herein set forth, the parties hereto do hereby agree as follows:

1. **SHARED REQUIREMENTS:**
   a. **SHARED** hereby provides to **CLIENT** and **CLIENT** hereby accepts from **SHARED** the Equipment to be supplied by **SHARED** pursuant to this **AGREEMENT**, which shall include, the Equipment and other provisions as set forth in Exhibit A, attached hereto and incorporated herein.
   b. **SHARED** will arrange to provide site planning assistance to **CLIENT** in coordinating layouts of Equipment's environment and will meet with **CLIENT's** architect or consultant for planning the operating environment for Equipment.
   c. **SHARED** will provide and pay for installation and removal of the Equipment. **CLIENT** will pay for Equipment transportation charges to **CLIENT's** location. **SHARED** will pay for Equipment transportation charges associated with the removal of the Equipment.
   d. **SHARED** as owner of Equipment will maintain Inland Marine insurance coverage to cover direct physical loss or damage to the Equipment, such insurance coverage does not include the loss of use and income to **CLIENT.**
   e. During the term of this **AGREEMENT, SHARED,** or through its authorized agent, shall provide all necessary service and preventive maintenance as further described in Exhibit A, in order to keep the Equipment in good operating order. Charges for overtime service coverage are the responsibility of the **CLIENT.**
   f. **SHARED** may provide applications training on the use of the Equipment to **CLIENT's** personnel as further described in Exhibit A. At the request of the **CLIENT, SHARED** will provide additional applications training for an incremental charge.
   g. **SHARED** will provide the initial connection to the **CLIENT's** network for the purpose of sending DICOM images to the **CLIENT's** PACs, Teleradiology system or similar networked modality, and for connectivity to **SHARED's** or its service agent's remote service diagnostic application. Any expenses associated with network components, network contracted services, or connection fees associated with the initial connection are the responsibility of the **CLIENT.**
   h. **SHARED** agrees to carry general liability insurance during the term of this **AGREEMENT,** covering **SHARED's** actions at **CLIENT's** location in the minimum amounts of One Million Dollars ($1,000,000.00) per occurrence and Three Million Dollars ($3,000,000.00) in aggregate. **SHARED** agrees to provide **CLIENT** with a Certificate of Insurance at the time of the initiation of service, and **CLIENT** will be notified on renewal or change. **CLIENT** shall be responsible for any and all other or additional insurance which **CLIENT** requires and be responsible for all acts or omissions of its medical staff, employees or other outside contractors.

2. **CLIENT REQUIREMENTS:**
   a. **CLIENT** will provide diagnostic imaging services for its patients by way of this **AGREEMENT** and will ensure the Equipment is utilized only for this purpose. **CLIENT** shall use Equipment solely in the conduct of its business, in a manner and for the use contemplated by the manufacturer thereof, and in compliance with all laws, rules and regulations of every governmental authority having jurisdiction over Equipment and the business or operations of **CLIENT.**

b. **CLIENT** will prepare and maintain the Equipment site in a condition suitable for operation of the Equipment and in accordance with the Equipment manufacturer's specifications including, but not limited to, incoming power quality and grounding requirements. The input power for the proposed system should be checked using a power line disturbance monitor for average line voltage, surge, sags, impulses and frequency. Results of line analysis will need to be assessed with a **SHARED** representative to determine if power conditioning is needed. If power conditioning is required, **CLIENT** will bear associated costs. **SHARED** may, in its discretion, delay delivery or installation if **SHARED** determines the Equipment site has not been properly prepared or there are any other impediments to delivery and installation attributable to the **CLIENT**; provided **SHARED** gives **CLIENT** written notice of such delay. **CLIENT** will be responsible for any additional and reasonable costs **SHARED** incurs as a result of such delivery or installation delay.

c. Unless specified otherwise in Exhibit A, **CLIENT** is responsible for any site modification and rigging costs associated with the delivery or removal of the Equipment.

d. **CLIENT** will appoint a Medical Director, (properly qualified and licensed as a physician) as well as a backup (in the event of absence) to be solely responsible for any activities that constitute the practice of medicine related to the Equipment. All medical care and advice are the responsibility of the **CLIENT** under the supervision of the Medical Director. If a Medical Director is not explicitly named, it is assumed the Medical Director is the **CLIENT**'s Radiologist interpreting the scan.

e. **CLIENT** will ensure the Equipment is used at all times in accordance with the manufacturer's requirements as specified in the Equipment operation manual by properly qualified and licensed personnel and will make normal operator adjustments to the Equipment as specified in the Equipment operation manual. If the Equipment listed in Exhibit A is a MRI system, **CLIENT** is responsible for establishing and maintaining policies addressing MRI Zone safety and security. Such policies will include annual Level I (non-MR technologists that have access to Zones III & IV) and Level II (MR technologists) training and support documentation. **CLIENT** will provide copies of its MRI safety policies and training documentation to **SHARED** upon **SHARED**'s request.

f. **CLIENT** is responsible for any inspections (including physicist inspections), permits, licenses, regulatory approvals (including Certificate of Need the "CON") required to perform diagnostic imaging services for its patients using the Equipment.

g. If the Equipment listed in Exhibit A is a PET/CT system, **CLIENT** is responsible for the provision and/or cost of all radioactive sources and isotopes for calibration and performance checks of the Equipment.

h. **CLIENT** agrees to provide and maintain a secure, dedicated broadband internet access mode for connection between the Equipment and **SHARED**'s or its service agent's remote service diagnostic application. Failure to provide an appropriate VPN broadband connection can result in charges for certain Equipment repairs.

i. **CLIENT** agrees that it shall execute diligence in providing for the security and protection of the Equipment.

j. **CLIENT** shall promptly report any Equipment problems or malfunctions directly to **SHARED** by calling **SHARED**'s Customer Call Center at 800.817.7017. **CLIENT** agrees to provide **SHARED** or its service agent (collectively known as "maintenance service representative") unrestricted and safe access to the Equipment to perform maintenance service activities as required. If requested, **CLIENT** will make available a technologist to operate the Equipment and answer questions regarding the performance of the Equipment during both remote and on-site problem resolution. **CLIENT** shall promptly report to **SHARED** any maintenance service problems which are not adequately handled by **SHARED**'s maintenance service representative.

k. In the event the Equipment or any part thereof is lost, destroyed or damaged (except for normal wear), due to negligence on the part of the **CLIENT**, **CLIENT** will promptly give **SHARED** notice of such loss or damage. **CLIENT** will take immediate action at **SHARED**'s direction to repair, restore or replace Equipment or any part thereof at **CLIENT**'s sole cost.

l. **CLIENT** shall permit any person designated by **SHARED** at **SHARED**'s expense, to visit and inspect Equipment at such reasonable times and places and as often as **SHARED** may reasonably request as long as such inspections do not jeopardize patient care or safety.

m. Unless specified otherwise in Exhibit A, **CLIENT** shall provide isotopes (PET/CT Equipment), film, contrast material, recording media, and other supplies as appropriate used in the operation of the Equipment.

3. **TERM:** Equipment will be provided for an Initial Period of **six (6) weeks** (hereafter "Initial Period") following the day the Equipment is installed and ready for first clinical use (hereinafter "Commencement Date"). This **AGREEMENT** shall become effective at the time the **AGREEMENT** has been signed by both parties and the Initial Period of the **AGREEMENT** shall commence on the Commencement Date.

4. **PRICE SCHEDULE AND PAYMENT TERMS:** Price Schedule is as shown in Exhibit A. **SHARED** shall invoice **CLIENT** at the beginning of each month. **CLIENT** shall pay to **SHARED** via ACH payment for said invoices within ten (10) days of receipt of invoice. Any payment not made when due shall bear interest from the due date until paid at the lesser of the rate of 15.0% per annum or the maximum rate permitted by law.

5. **TAXES:** Prices as stated in Exhibit A do not include sales, use, excise, or similar taxes. Consequently, in addition to the prices specified herein, the amount of any present or future sales, use, excise, property, value-added or other similar tax applicable to the Equipment or service furnished hereunder shall be paid by the **CLIENT**. **CLIENT** is responsible for the filing of any applicable property tax. If **CLIENT** is a tax-exempt entity it shall provide **SHARED** with a tax-exemption certificate acceptable to the taxing authorities.

6. **RENEWAL:** This **AGREEMENT** will not be extended beyond the Initial Period unless **CLIENT** provides **SHARED** with written notification of its desire to extend the Initial Period and such notification is received by **SHARED** no later than ten (10) days prior to the **AGREEMENT** expiration date. Upon receipt of an extension request, **SHARED** and only **SHARED**, will decide if an extension will be provided and will respond to **CLIENT** within 72 hours of receipt of **CLIENT**'s request.

7. **DEFAULT & TERMINATION:** The occurrence of any of the following shall constitute an Event of Default hereunder; (i) **CLIENT** shall fail for a period of ten (10) days to pay all or any portion of any payment due hereunder, (ii) **CLIENT** shall commit an act of bankruptcy within the meaning of the Federal Bankruptcy Act, or (iii) either party breaches any of its covenants herein, other than the aforementioned (i) and (ii), and such breach shall continue for ten (10) days after notice from the non-breaching party.

   If an Event of Default shall occur, the non-breaching party may without liability terminate this **AGREEMENT** and the breaching party's rights hereunder by providing written notice to the breaching party. In the Event of Default by **CLIENT**, **SHARED** may enter **CLIENT**'s premises and repossess Equipment from **CLIENT** and collect all monies due under this **AGREEMENT**.

   Either party's remedies hereunder shall be cumulative and not exclusive of one another or any other right or remedy to which it is entitled at law, inequity, or otherwise.

   For the avoidance of doubt, this **AGREEMENT** is not terminable for convenience and may only be terminated in accordance to this **AGREEMENT**.

8. **OWNERSHIP:** Equipment will be kept by **CLIENT** in its sole possession and control, will at all times be located on the premises stated herein, and will not be removed without prior written consent of **SHARED**. **CLIENT** will not make or permit to be made any alteration or addition to Equipment without the prior written consent of **SHARED**. **CLIENT** will keep and maintain the Equipment free and clear of all liens, charges and encumbrances. **CLIENT** may not sublease Equipment or otherwise allow others to use Equipment without the prior written consent of **SHARED**. Equipment as set forth in Exhibit A and any subsequent alteration, changes, or upgrades is solely the property of **SHARED** and may be removed by **SHARED**. **CLIENT** shall permit **SHARED** to affix to Equipment and each unit or element thereof, appropriate tags, decals or plates indicating the ownership of such Equipment by **SHARED**, and **CLIENT** shall not cause or permit any such tags, decals or plates to be removed, defaced or covered in any way.

9. **EXCLUSION/SEPARATE CHARGES:** This **AGREEMENT** specifically excludes labor, parts and expenses necessary to repair Equipment (i) damaged by collision, collapse of building, vandalism, power failure or fluctuations, misuse, abuse, negligence, a force majeure occurrence as described in the following section of this **AGREEMENT**, or by the **CLIENT**'s failure to operate the Equipment in accordance with the instructions as described in the manufacturer's operator's manual or to maintain the required operating environment, (ii) defective due to unauthorized attempts by the **CLIENT** or any third party not authorized by **SHARED** to repair, relocate, maintain, service or modify the equipment, or (iii) which failed due to causes from non-**SHARED** supplied or authorized equipment, parts or software.

   If **SHARED's** maintenance service representative is called upon to service or repair Equipment as a result of any of the above causes, a separate invoice will be issued for the subsequent labor, parts and expenses incurred.

   Unless identified as a covered component/service in Exhibit A the following items are excluded from maintenance service coverage under this **AGREEMENT**; Incoming power unit or conditioner, external water chiller, third party peripherals used in conjunction with the Equipment including advanced imaging or PACS workstations, storage technology and supply items including, but not limited to, film cassettes, magnetic tapes/disks, patient restraints and head holders.

   If the Equipment listed in Exhibit A is an MRI system, **SHARED** will monitor cryogen levels through a remote diagnostic system as long as **CLIENT** has provided a broadband connection for the monitoring of equipment performance. If **CLIENT** does not provide a broadband connection for the monitoring of system performance **CLIENT** will be responsible for reporting cryogen levels and magnet pressure to **SHARED** on a specific time table as determined by **SHARED**. Failure by **CLIENT** to provide such reporting will result in **CLIENT** being charged for any magnet maintenance and/or cryogen refill

service activities under this **AGREEMENT**.

An MRI magnet quench directly resulting from actions or negligence by the **CLIENT** and its employees/representatives is a service event that is not covered under the terms of this **AGREEMENT**. The cost for replacement cryogens and any repairs (labor and parts) resulting from such a quench, including, but not limited to magnet repair or replacement, will be the responsibility of the **CLIENT**. All service labor, cryogens and parts furnished for such repair and restoration will be charged to **CLIENT** at **SHARED's** prevailing rates.

10. **PROTECTED HEALTH INFORMATION (PHI) SECURITY REQUIREMENTS:** In consideration of the parties' continuing obligations under the HIPAA Privacy Rule and Security Rule, and to protect the interests of both parties, **CLIENT** will at the termination of this **AGREEMENT**, and prior to **SHARED's** removal of the Equipment from **CLIENT's** premises, delete all PHI from the Equipment's hard drive(s) and remove all PHI (Patient CD's, patient logs, etc.) from the **SHARED** modular building or medical coach which houses the Equipment. **CLIENT** will provide **SHARED** with written verification of its deletion/removal of PHI from the Equipment on or before the date the Equipment is removed from **CLIENT's** premises.

    CLIENT will have the same PHI deletion/removal responsibilities as stated above if the **AGREEMENT** has not yet terminated, but **CLIENT** and **SHARED** have amended the **AGREEMENT** to replace or upgrade the Equipment resulting in Equipment that can contain PHI being removed from **CLIENT's** premises.

11. **FORCE MAJEURE:** **SHARED** will not be liable to **CLIENT** for any failure to fulfill its obligations under this **AGREEMENT** due to causes beyond its reasonable control and without its negligence including, but not limited to, governmental laws and regulations, acts of God or the public, war or other violence, civil commotion, blockades, embargoes, calamities, floods, fires, earthquakes, explosions, storms, strikes, lockouts, work stoppages, unavailability of raw materials or power. In addition, in the event of any determination pursuant to the provisions of a collective bargaining agreement between the **CLIENT** and any labor union representing the **CLIENT's** employees preventing or hindering the performance of any of the obligations of **SHARED** under this **AGREEMENT**, then **SHARED** shall be excused from the performance of such obligations unless the **CLIENT** makes all required arrangements with the trade union, or unions, to permit **SHARED** to perform the work.

12. **DISCLAIMER OF WARRANTIES:** **SHARED** represents and warrants that: (a) **SHARED** is authorized to provide the Equipment and provisions as set forth in Exhibit A; (b) **CLIENT** shall receive any and all manufacturer warranties applicable to the Equipment; (c) **SHARED** shall pass through and assist **CLIENT** in effecting all such manufacturer warranties; (d) **SHARED** has not taken any action that would nullify any applicable manufacturer 's warranty for the Equipment; (e) **SHARED** will perform its obligations in a professional, timely, and diligent manner, consistent with industry standards; (f) the Equipment will conform to any specifications that are provided by **SHARED** to **CLIENT**; and (g) **SHARED** will inspect Equipment before delivery to **CLIENT** to ensure the Equipment is in a good condition and is not damaged or broken.

    OTHER THAN THE REPRESENTATIONS AND WARRANTIES MADE IN THIS SECTION AND THE **AGREEMENT, SHARED** PROVIDES EQUIPMENT "AS IS" AND IS NOT ACTING AS THE MANUFACTURER OF EQUIPMENT, THE MANUFACTURER'S AGENT OR THE SELLER'S AGENT AND MAKES NO OTHER WARRANTY OR REPRESENTATION, EITHER EXPRESSED OR IMPLIED, AS TO THE MERCHANTABILITY, FITNESS, DESIGN OR CONDITION OF, OR AS TO THE QUALITY OR CAPACITY OR, THE MATERIAL OR WORKMANSHIP IN EQUIPMENT, OR ANY WARRANTY THAT THE EQUIPMENT WILL SATISFY THE REQUIREMENTS OF ANY LAW, RULE, SPECIFICATION OR CONTRACT WHICH PROVIDES FOR SPECIFIC EQUIPMENT.

13. **LIMITATIONS OF LIABILITY:** In no event, whether as a result of breach of contract, warranty, tort (including negligence and strict liability) or otherwise, shall **CLIENT** or **SHARED** be liable to the other party under the **AGREEMENT** for any indirect, special, incidental, consequential or penal damages including, but not limited to, loss of profit, revenue, time, opportunity or data, damage to associated equipment, cost of capital, cost of substitute equipment, or down time costs. **SHARED's** liability hereunder shall be limited to six (6) times the monthly contract price for the Equipment that is the basis of the claim. If **SHARED** or its agent furnishes **CLIENT** with advice or other assistance which concerns any system supplied hereunder and which is not required pursuant to this **AGREEMENT**, the furnishing of such advice or assistance will not subject **SHARED** or its agent to any liability, whether in contract, tort (including negligence and strict liability) or otherwise.

14. **INDEMNIFICATION:** **SHARED** will indemnify, defend, and hold **CLIENT**, its affiliates, subsidiaries, agents, representatives, directors, officers, and employees, harmless from and against all third party claims, causes of actions, demands, liabilities, and expenses, including reasonable attorney fees and witness' fees, arising out of **SHARED's** obligations related to this **AGREEMENT** and to the extent caused by the negligence or willful misconduct of **SHARED** or any of **SHARED's** employees

or agents.

CLIENT will indemnify, defend, and hold **SHARED**, its affiliates, subsidiaries, representatives, directors, officers, and employees, harmless from and against all third party claims, causes of actions, demands, liabilities, and expenses, including reasonable attorney fees and witness' fees, arising out of **CLIENT's** obligations related to this **AGREEMENT** and to the extent caused by the negligence or willful misconduct of **CLIENT** or any of **CLIENT's** employees or agents.

15. **NON-SOLICITATION:** During the term of this **AGREEMENT**, neither party shall solicit for employment any employee of the other, unless the hiring party obtains the prior written consent of the other party. It shall not be a violation of this provision if the employee is responding to a public solicitation for employment including a posting in a newspaper or website, or is no longer employed with the other party at the time the hiring party makes its initial contact with such person.

16. **ASSIGNMENT:** This **AGREEMENT** may not be assigned by **CLIENT** without the prior written consent of **SHARED**. If consent to an assignment is obtained, this **AGREEMENT** is binding on the successors and assigns of the parties to this **AGREEMENT**. Notwithstanding any provision of this **AGREEMENT** to the contrary, **CLIENT** shall have the right to assign or otherwise transfer its interest under this **AGREEMENT** to any "related entity." For the purposes of this section, a related entity shall be deemed to include a parent, subsidiary, any entity that acquires all or substantially all of the that party's assets or operations relating to this **AGREEMENT**, and the surviving entity of any merger or consolidation involving **CLIENT**. **CLIENT** will remain liable for any defaults by the successor or assigns. Any assignment to a related entity shall not require the consent or approval of **SHARED** in order to be effective.

17. **FINANCIAL STATEMENTS:** **CLIENT** agrees to the provision of audited and/or interim financial statements and operation metrics upon the request of and to **SHARED** during the term of **AGREEMENT**.

18. **RELATIONSHIP:** In the performance of its obligations pursuant to this **AGREEMENT**, **SHARED** shall be for all purposes, an independent contractor and there shall be no other relationship between the parties in connection with such obligations.

19. **EXCLUDED PROVIDER:** **SHARED** hereby represents and warrants that **SHARED** and its employees, contractors, subcontractors or agents are not and at no time have been excluded from participation in any federally funded health care program, including but not limited to Medicare and Medicaid. **SHARED** hereby agrees to notify **CLIENT** immediately after **SHARED** becomes actually aware of any threatened, proposed, or actual exclusions of **SHARED** from any federally funded health care program, including but not limited to Medicare and Medicaid. In the event that **SHARED** is excluded from participation in any federally funded health care program during the term of this **AGREEMENT**, or after the effective date of this **AGREEMENT** it is determined that **SHARED** is in breach of this Section, this **AGREEMENT** shall, as of the effective date of such exclusion or breach, automatically terminate.

20. **ACCESS TO RECORDS:** The following clause is included herein because of possible application of Section 1861 (v)(1)(1) of the Social Security Act; if that Section should be found inapplicable to this **AGREEMENT**, then this clause shall be deemed not to be part of this **AGREEMENT** and shall be null and void.

    Until the expiration of four (4) years after the termination of furnishing of Equipment and services pursuant to this contract, **SHARED** shall make available upon written request of the Secretary of the Department of Health and Human Services or the U.S. Comptroller General or any of their duly authorized representatives, this contract, and books, documents, and records of **SHARED** that are necessary to verify the nature and extent of costs incurred by the **CLIENT** under this **AGREEMENT**.

21. **CONFIDENTIALITY:** Each party will treat the terms of this **AGREEMENT** and the other party's written, proprietary business information as confidential.

22. **ENTIRE AGREEMENT:** This **AGREEMENT** and all Attachments hereto contain the entire **AGREEMENT** between **CLIENT** and **SHARED** with respect to the subject matter herein and supersede any prior understandings or agreements between the parties or their agents. If any part of this **AGREEMENT** is or shall become legally invalid for any reason, the same shall be deemed to be severable for the remainder thereof; any such invalidity shall in no way affect the validity of this **AGREEMENT** as a whole or any other part or portion thereof. The **AGREEMENT** shall be binding upon and inure to the parties, hereto, their Successors and Assigns. This **AGREEMENT** shall not be effective or binding upon **SHARED** until signed on its behalf by an authorized officer of **SHARED**. This **AGREEMENT** may be altered or amended only by signed written agreement between the parties.

23. **GOVERNING LAW:** The law of the State of Illinois will govern this **AGREEMENT**.

IN WITNESS WHEREOF, CLIENT and **SHARED** have caused this **AGREEMENT** to be executed by their duly authorized representatives as of the day and year indicated by **SHARED's** signature date below. Acceptance is dependent upon the analysis of the **CLIENT's** financial and operational information as requested by **SHARED**.

_____
(please print formal legal name)

TAX ID# _____

BY: _____
(Print) (Signature)

TITLE: _____ **DATE:** _____

SHARED IMAGING, LLC

BY: _____
(Print) (Signature)

TITLE: _____ **DATE:** _____

DIVIDER II

Poplar Bluff Regional Medical Center

MRI Replacement Project – Hospital

PROJECT DESCRIPTION

Poplar Bluff Regional Medical Center proposes to replace our outdated Magnetic Resonance Scanner with a newer version that meets the standards of todays' technology. The existing MRI is 10+ years old (5 years over the CHS Medicare 5 year value parameter). The equipment we propose to purchase is a 1.5 Tesla Siemens MAGNETOM Aera and a Medrad MRexperion MRI injector. This will allow for improved quality imaging and additional MRI procedures not possible with the existing scanner.

The proposed cost of this project is estimated at $1,4000,000. The quote for the new MRI is $1,218,012. It will be located in the same 1,018 square foot space currently occupied by our old scanner. Installation into this space (including shielding) is estimated to cost $33,650. We will maintain current services through the use of a mobile MRI rental. The cost of the mobile service is estimated to be $39,000 for a 6 week lease (see Exhibit 4).

The MRI equipment we plan to replace is a GE Signa Excite HD. The existing equipment was approved by the CON Review Committee in 2006. The project number for this replacement CON was #3968 HS (See Exhibit 5).

Poplar Bluff Regional Medical Center

MRI Replacement Project – Hospital

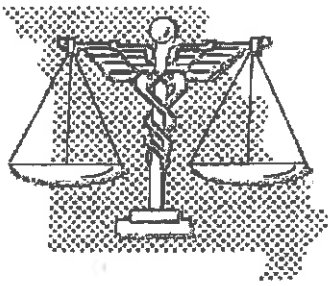
ITEMIZED COST OF MEDICAL EQUIPMENT

MRI.....$1,218,012

Medrad MRXperion MR Injection System.....$38,415

EXHIBIT 5

Notification of Certificate of Need



TO WHOM ALL THESE MAY PRESENT:

WHEREAS, in accordance with §197.300–§197.366, no person shall develop or offer a new institutional health service without first obtaining a Certificate of Need (CON) from the Missouri Health Facilities Review Committee (Committee);

WHEREAS, no state agency charged by statute to license or certify health care facilities shall issue a license to, or certify any such facility, or distinct part of such facility, that is developed without obtaining a CON;

WHEREAS, no agency of state government may appropriate or grant funds to or make payment of any funds to any person or health care facility which has not first obtained every CON required under sections §197.300–§197.366;

WHEREAS, an application was submitted on September 8, 2006, to replace a magnetic resonance imager (MRI);

WHEREAS, the CON Program staff analyzed this application in accordance with §197.300–§197.366, and the Committee found that there was a need;

WHEREFORE, on October 23, 2006, to document and commemorate its affirmative finding of need, the Committee issues this CON as set forth in:

Project application #3968 HS per terms incorporated therein
to Poplar Bluff Regional Medical Center, Health Management Associates, and
GE Healthcare Financial Services,
to replace a MRI located at
2620 North Westwood, Poplar Bluff, MO 63901
with a project cost of $1,846,513.

FURTHER, the Missouri Health Facilities Review Committee commends all persons associated with the application for their assistance in the delivery of high-quality, low-cost health care to the people of the State of Missouri.

H. Bruce Nethington, Chair
Missouri Health Facilities Review Committee

DIVIDER III

DIVIDER III

1. **FINANCIAL RATIONALE:**

We will be able to perform procedures of higher quality for diagnosis and treatment decisions that we are currently unable to perform. Examples of these are MRI hip arthrograms, abdomens and neuro imaging. With a larger bore magnet, we will also be able to take care of our population of larger patients.

Without this replacement, Poplar Bluff Regional Medical Center will have difficulty continuing to be a competitive and viable provider of this service.

2. **USEFUL LIFE:**

CHS Medicare useful life of MRI equipment is 5 year (see Exhibit 6).

3. **QUALITY OF CARE:**

Imaging quality has become of increasing concern. Physicians are experiencing increasing difficulty in treating their patients due to poor quality exams. Several patients have had to undergo repeat MRI scans at referral facilities due to poor quality images produced by our current system. A new, higher gradient, technologically advanced system will eliminate the loss of revenue due to these exams being repeated and will also enable us to expand on diagnostic services.

4. **DOCUMENTATION OF REPAIRS:**

Frequently needed repair to existing MRI results in delays in service. Down time on the MRI results in patients having to be rescheduled or referred to other facilities (see Exhibit 7).

Also, we are a Level II Stroke Center and we must be able to provide MRI services 24/7 to maintain our accreditation.

5. **LEASE ON CURRENT EQUIPMENT**

There is no lease on the existing MRI equipment.

6. TECHNOLOGICAL ADVANCES:

- Higher gradient imaging.

The higher gradient is required to accommodate higher channel coils. Higher channel coils increase image quality by increasing the signal to noise ratio.

- Tim(r) 4G technology

Enables higher resolution imaging and increased throughput.

- Dot(r) technology

Allows for higher consistency and flexibility in scanning.

- Quiet Suite

Enables complete, quiet examinations with at least a 70% reduction in sound pressure levels.

7. PATIENT SATISFACTION:

Patients will have less likelihood of becoming claustrophobic as the MRI bore size will be larger (going from a 60cm bore to a 70cm bore). New technology will also allow for faster scan times.

Better quality imaging will also improve patient satisfaction since some patients are undergoing repeat scans at other facilities due to poor quality imaging.

8. PATIENT OUTCOMES:

Several patients have had to undergo repeat scans due to poor imaging quality and an unwillingness by referring physicians to treat based on the scans. We will be able to provide patients with better treatment options by providing improved quality and therefor, more diagnostic studies.

9. UTILIZATION IMPACT:

We anticipate a 14% increase related to additional capabilities such as the larger bore size, faster scan times and improved quality.

10. NEW CAPABILITES:

We will be able to offer hip arthrography imaging and additional neuro imaging. We will also be able to expand our abdomen imaging capabilities as well as taking care of larger patients that our current MRI cannot accommodate.

11. PERCENT INCREASE IN PATIENT CHARGES:

Average Charges***

2015.....$4,188

2016.....$4,307

2017.....$4,567

2018.....$4,841

2019.....$5,131

***Projected costs for 2018-2019 are based on an estimated annual increase of 6%.

EXHIBIT 6

Community Health Systems

USEFUL LIFE LISTING

LAST UPDATED: 12/02/2013

Item	Years Internal	Medicare
Magnetic resonance imaging (MRI) equipment	7	5
Magnetic resonance imaging (MRI) equipment: 3T MRI	7	5
Magnetic resonance imaging (MRI) equipment: 7T MRI	7	5
Magnetic resonance imaging (MRI) equipment: Intra-operative MRI (IMRI)	7	5
Magnetic resonance imaging (MRI) equipment: Intra-operative MRI for neurosurgery	7	5

EXHIBIT 7

Started	Completed	Cause	Effect
5/4/2017	5/9/2017	Multiple parts defective that stopped system from booting and scanning. Host computer not booting.	1
4/27/2017	4/27/2017	Found bore light had become loose.	2
4/17/2017	4/21/2017	Found SCP errors in log 2249422, 2248355. System needing a TPS reset to scan each patient.	2
4/3/2017	4/4/2017	Found system unable to prescan.	1
3/27/2017	3/31/2017	System intermittently hangs up in between series and sometimes requires restart.	2
3/23/2017	3/30/2017	SCP would intermittently quit communicating with the system	2
3/17/2017	3/22/2017	Intermittent lockups requiring TPS rests and system resets.	2
3/10/2017	3/13/2017	Main system monitor went blank. Customer temporarily swapped main with secondary monitor to continue scanning.	2
10/10/2016	10/10/2016	Found speaker inside magnet bore to be inoperable.	2
9/7/2016	9/28/2016	magnet pressure staying high	2
8/31/2016	9/2/2016	Cold head unable to recover pressure	1
8/11/2016	8/16/2016	RF Amp stopped due to high limit being reached on one patient scan	2
7/18/2016	7/22/2016	Multicoil connect losing connection intermittently.	2
6/27/2016	7/1/2016	Pressure trending up and cold head cannot recover.	2
6/2/2016	6/16/2016	Found UTNS 3 bd failing gain. Also found J31 connector loose.	2
4/13/2016	4/15/2016	Main cradle latch cable broken and not releasing latch when table docked.	2
4/1/2016	4/1/2016	Customer stated units images are grainy	2
3/21/2016	3/29/2016	Hybrid splitter was causing reflective RF to create low SNR and artifacts	2
3/18/2016	3/20/2016	noise is high	2
3/16/2016	4/1/2016	Some images appear grainy on Body Array coil upper 2418093 SN.50891 and lower 2416759 SN.50881 and on CTL coil.	2
2/4/2016	2/6/2016	Attempt to run SNR test on HR Brain coil model 101844 SN. U30405 failed with Multicoil error.	2
2/4/2016	2/4/2016	Respiratory bellows is not working.	2

1=System Down 2=System Partially Down